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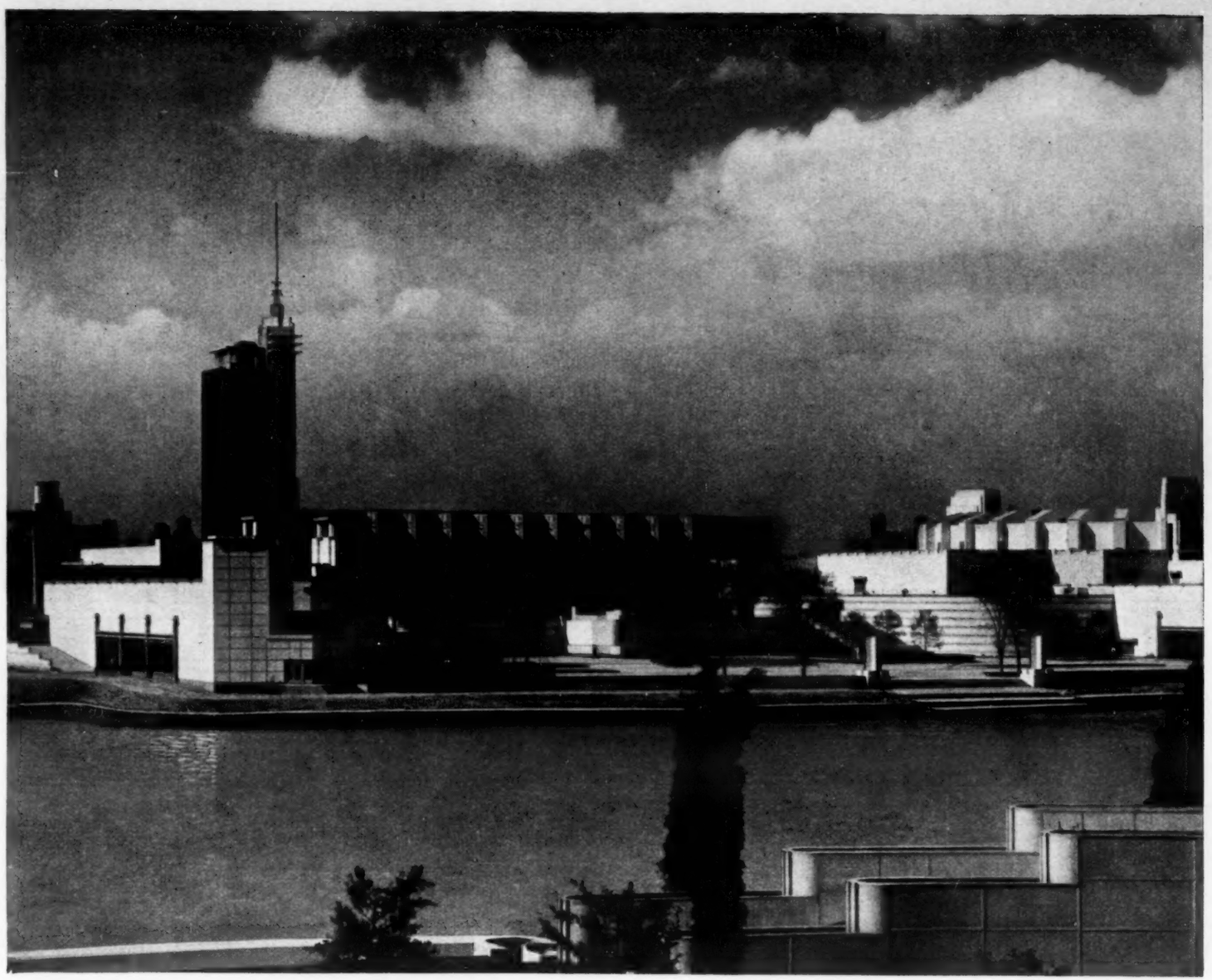
The Hall of Science is the largest structure undertaken thus far, enclosing nine acres of space. The building is "U" shaped 700 feet long and 400 feet wide, with two stories and a mezzanine. Two wings descend by terraces from the main structure, to a lagoon opening into Lake Michigan, forming a great courtyard. At the southwest corner of the building is a carillon tower.



Hall of Science, Chicago Century of Progress Exposition.

Hall of Science at the Century of Progress

ONE of the most marvelous buildings of the Chicago 1933 World's Fair is the Hall of Science, which contains exhibits portraying the wonders of the basic sciences of chemistry, physics, mathematics, biology, geology and astronomy.

The basic theme of the Exposition will be dramatized in the Hall of Science by scientific exhibits prepared by the staff of the Exposition and through the cooperation of scientific and industrial institutions. The theme is: that industries which have transformed living conditions in the past hundred years, owe their existence and present development to the basic sciences.

Manufacturers of chemicals, scientific equipment, medical products, pharmaceuticals, laboratory equipment, instruments and supplies, who serve millions of customers throughout the United States, are developing exhibits of their products and processes which will be shown in the Hall of Science.

The petroleum industry, representing an investment in the United States alone, of $12,000,000,000 will participate with a scientific exhibit in the Hall of Science, sponsored by the American Petroleum Institute. The industry, which began, and has grown to its present mammoth proportions during the hundred years which will be celebrated by the Exposition, will present displays dealing with the geology and chemistry of oil.

A working exhibit shows what happens before the white-clad attendant at the filling station can fill the motorist's gasoline tank. The exhibit will tell how, where and why petroleum occurs in the earth and the many interesting chemical processes that must be followed through before its hundreds of products are ready for the ultimate consumer.

With the scientific story of oil as a background, various oil companies are planning to portray to the millions of visitors their particular developments and contributions to the production of gasoline and other petroleum products. The Pure Oil Company has already contracted for exhibit space in the General Exhibits Group, now under construction on the Fair grounds.

The petroleum industry's exhibit had its origin in the report of a committee which recommended to the American Petroleum Institute at its meeting in Chicago last winter, the participation of the petroleum industry as a whole in the Exposition.

The story of the advancements in the medical sciences also will be told by means of dynamic, moving exhibits.

The Pasteur Institute of Paris will demonstrate Pasteur's contributions to the science of bacteriology which have been of incalculable benefit to mankind. The Robert Koch Institute of Berlin will show Koch's discovery of the tubercule bacillus, the cause of tuberculosis.

The "Transparent Man," loaned by the Mayo Clinic, will enable the visitor to study the human anatomy as though he possessed X-Ray eyes.

How the chemist has developed the world's raw materials—air, water, coal, cellulose, rubber and oil for man's benefit will be shown. Other exhibits will tell how the chemist has produced ammonia and nitric acid for the preparation of medicines, explosives, fertilizers, etc. and how by the application of the principle of absorption, he has purified sugar, oil, air and water.

A novel feature of the exhibits is the dioramas, which may be described as pictures in three dimensions, with the foreground modeled in perspective and blending into a painted background, thus giving the illusion of distance. All the exhibits, even those visualizing the most abstract principles, are in dramatic form.

Among the companies who have contracted for exhibit space in the Hall of Science are: Abbott Laboratories; American Optical Co.; August E. Drucker Co.; Bausch & Lomb Optical Co.; Borden Sales Co., Inc.; Burroughs Wellcome & Co., Inc.; Chicago Pharmacal Co.; J. C. Deagan, Inc.; Dentists Supply Company of New York; Eastman Kodak Company; Gaertner Scientific Co.; General Electric X-Ray Corporation; Hanovia Chemical and Manufacturing Company; Hynson, Westcott & Dunning, Inc.; Iodent Chemical Company, Inc.; Kendall Company (Bauer & Black); Mallinckrodt Chemical Co.; Merck & Company, Inc.; E. R. Squibb & Sons, Inc.; Union Carbide and Carbon Corporation; Victor Chemical Works; Vitamin Food Co., Inc.

The following scientific and industrial institutions and organizations are either furnishing or cooperating in the preparation of exhibits in Basic Science and Medicine:

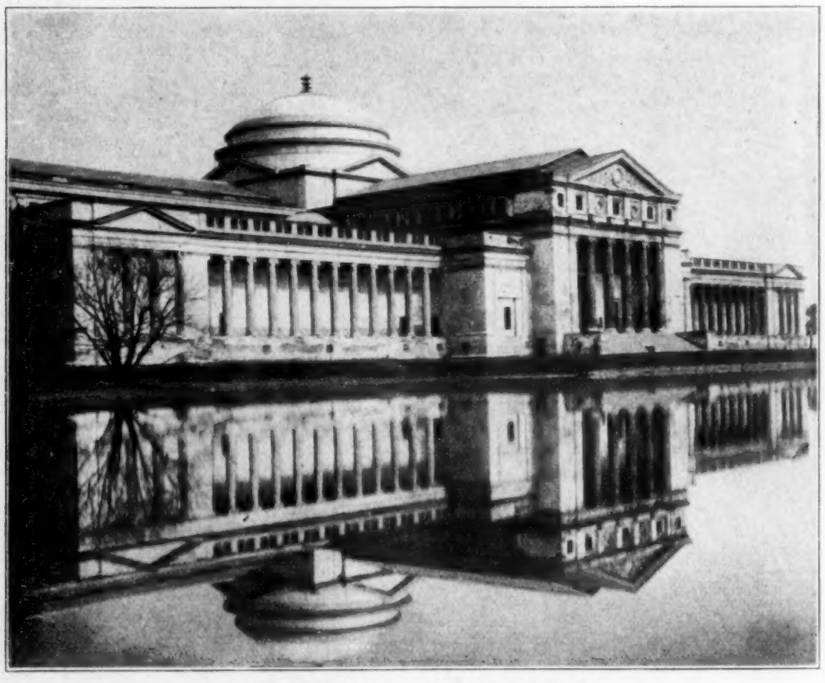
American College of Surgeons; American Medical Association; American Society for the Control of Cancer; Bakelite Corporation; Baker & Company; Bausch & Lomb Optical Company; William Beebe; Boyce-Thompson Institute; Callite Products Company; Chicago Dental Centennial Congress; Clay-Adams Company; Cleveland Clinic Foundation; Copeland Products Company; Corning Glass Works; Cutler-Hammer Company; Thomas J. Doe & Company; Fansteel Products Company;

Firestone Tire and Rubber Company; General Biological Supply House; G. M. Laboratories, Inc.; Goldsmith Bros. Smelting & Refining Co.; Grigsby-Grunow Company; Illinois State Department of Health; International Filter Company; Johns-Manville Company; Charles L'Hommedieu & Sons; Mallinckrodt Chemical Company; Mayo Clinic; McGill University; Merck & Company; Metal & Thermit Company; Milwaukee County Hospital; Milwaukee Public Museum; Museum of Science and Industry; National Academy; Pasteur Institute of Paris; The Perser Corporation; Rand McNally Company; Simoniz Company; Spencer Lens Company; Standard Brands, Inc.; Texas Gulf Sulphur Company; The Thermal Syndicate; Union Carbide & Carbon Corporation; University of Chicago; University of Illinois; Victor Chemical Company; W. M. Welch Mfg. Company; Wellcome Institutions of Medical Science, London; Westinghouse Electric & Mfg. Company.

The Museum of Science and Industry

VISITORS to Chicago during the World's Fair Year 1933 will be interested to know that the great masterpiece of the Columbian Exposition of 1893—the Fine Arts Building—has been restored with stone and steel. This is the building Augustus St. Gaudens, a foremost American sculptor, described as "The finest thing since the Parthenon." This structure will house Chicago's youngest institution which promises to become world famous, The Museum of Science and Industry, founded by Julius Rosenwald.

The vast interior of this building, designed to accommodate the planned exhibits, will not be completed until 1935. However, a large area, unfinished as to tile and plaster but impressive as to sturdiness and space, has been prepared to welcome the visitor during 1933 and present the initial exhibits where entertainment, education and inspiration provide a new avenue of recreation and study.



The New Museum of Science and Industry

The Museum of Science and Industry, as the building is now known, is situated on the northern edge of Jackson Park, on the outer drive. Its location in the park on Lake Michigan is due east of 57th Street. Its collections will trace the technical ascent of man from primitive times to the present day. Eleven miles of exhibit will tell in three dimensional forms the story of man's use of tools and machines from the stone hatchet to the complicated machines of today. Visitors will operate most of the machines by pushing buttons or pulling levers.

On July first a large section of the Museum floor space will be open to the public. It will contain interesting exhibits to give the visitor a cross-sectioned picture of what the completed Museum will ultimately be like. Chief among these exhibits will be a full sized and operating bituminous coal mine of three thousand tons a day capacity. In addition to the coal mine, with its underground workings and huge operating machines, there will be many other exhibits relating to the geology, production, economics, and utilization of coal.

Following the conclusion of A Century of Progress many of the important World's Fair exhibits will be placed in the Museum, and at that time the other sequences will be opened. These will consist of a series of exhibits on the fundamental sciences of physics and chemistry, and on geology, mining, agriculture, forestry, power, transportation, architecture and city development, and printing and graphic arts.

In each division of the Museum full sized operative equipment, scale models, still and motion pictures, slide and filmstrip projectors, and other visual aids will be utilized in presenting the discoveries in science, engineering and industry. While the past achievements in these fields will be stressed to some extent, they will not be over emphasized. The past will be shown more as a complement to the mechanical wonders of today, and modern equipment and practice will take precedence over historic relics.

EDITORIAL

SINCE that moment of all moments in the remote past, when there first emerged in the biologic cosmos a mind that could be called human, the progress of racial intelligence has depended upon the conveying of thought from individual to individual. For any generation to achieve an advance, it had to receive its mental inheritance from the preceding generation. From this higher vantage point only could the new generation climb on higher.

For this conveying of thought, fact or fancy, the only path from mind to mind has been, and must always be, "the senses." The sense of sight operated from the start, and from long before the start, to give the primitive mind its truest knowledge of realities. The sense of hearing became vastly important after the supreme imaginative achievement of the infant race—the making of specific articulate sounds to mean specific things. The human voice could not speak the things, nor reproductions of the things, but only sound symbols for the things. When primitive man would discuss something out of eye-shot he resorted perforce to the symbols; what he could not "show" visually he "described" orally. (The elite few who could, drew pictures). Sight was the great medium for grasping all that could be seen—hearing for the things not visible. Sight and hearing remained the chief avenues for the transfer of ideas and thought down through the elemental aeons of human progress. Sight gave the truest transfer but was limited to what was within visual range of both informer and informed. Hearing gave truth—if the sound symbols were correctly used by the speaker and correctly interpreted by the hearer—for things remote or abstract, but only for an audience within aural range. The value of verbal transfer gained somewhat on visual transfer as language increased its range of expression. Printing expanded the verbal reach of the speaker to the ends of the earth and for 400 years the "word" was the thing. The priceless sense of vision came to be used chiefly for "reading," not for "seeing."

Then came Photography, only 100 short years ago, and the visual sense came into its own. No longer was vision limited by horizons. The camera could bring, from the ends of the earth or the depths of space, realities to our eyes without need of interpretation of verbal symbols. Printing developed the half-tone and kindred processes, and these realities could be passed on to all other eyes. And last, the motion-picture came to capture and preserve scenes of life and motion at will, and make all the peoples of the world eye-witnesses of those scenes.

Since Niepce and Daguerre, the world has been rapidly learning the power of visual representation. Millions of pictures a day are doing more than twice their acreage in printed words could possibly do. Industry, commerce, journalism, advertising, entertainment — all use pictures on an enormous scale, to their enormous advantage. Education—the field where swift and accurate conveying of information is supremely important—probably benefits least from visual presentation. Education alone is content with its own traditions, content to miss such values and keep its dignity. The comfort is that more and more thousands of teachers are showing the path which tens of thousands more will follow.

THE greatest visual demonstration of what the eyes can mean to the mind will be held in Chicago this summer. It is called the Century of Progress Exposition, and opens May 27th, next, in spite of doubt, drought or depression. To most of the millions who will attend, it will be merely a "big show", albeit the biggest and most impressive the world has yet seen. To those who view it and reflect upon its tremendous significance for the educational field, it will be the greatest stimulus yet furnished toward nation-wide development of the visual idea in education. Thousands of teachers will visit this exposition, return to their schools, and begin ladling out to their classes verbal descriptions of the marvels they, the teachers, saw. But other thousands—Praise be!—will be inspired to use thereafter, as they never used before, the young, keen, hungry eyes that throng America's classrooms. If visual presentation, even amid the teeming distractions of a "World's Fair," can do for teacher minds what this great Exposition will inevitably do, consider what visual methods can do for pupil minds in the ideal learning situation of an American classroom!

The Chicago Exposition will be "visual education" on a gigantic scale for the millions who will see it. No teacher, who believes there is such a thing as educational progress, can afford to miss this supreme visual experience of a life-time.

NELSON L. GREENE.

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Are You Interested in Visual Education?

Six objectives for the organization and development of a Visual Education Department in the elementary schools

ELSIE I. CHAMBERS

VISUAL Education is a new subject in school only in name. Progressive teachers have always emphasized the gaining of knowledge through the senses of sight, hearing, and touch, and have always realized that the greatest number of pupils are visual minded.

This method of correlating the study of pictures with the text lessons and then following the demonstration with the development of a project or with an exploratory field trip so fixes the lesson to be learned in the mind of the child that he never forgets it.

The method might be called the seeing, hearing, doing method but as this is a longer way of defining it we simply call it Visual Education and then proceed to spend endless time in explaining that by visual education we do not intend to give all instruction by the means of pictures.

There should be a supervisor of the visual department, one who selects the equipment, gives demonstrations as to its use, prepares the exhibits, and trains the classroom teacher to use the material to the best advantage. The supervisor, with the assistance often of classroom teachers, should prepare a course of visual study for each grade in the school. Visual work, to be most effective, should have an allotted period on the program of every classroom and these periods should be as strictly observed as periods of any subject in the curriculum.

For the visual equipment one may use glass slides, still films, films and glass slides, picturols, motion pictures, stereopticon pictures, prints, of both wall and desk sizes, charts, blackboard drawings, models, marionettes, industrial exhibits, toy motion picture boxes, strip theatre boards, film strips, costume dolls, and soap and clay modeling.

There are a few important objectives that every teacher should know and observe in the care and use of equipment.

Rule One: Keep all equipment clean, attractive, up-to-date, and in good condition for use.

When using slides, films, and motion picture films in a darkened or partially darkened room, be exceptionally careful about the ventilation of the room, the placement of chairs, screens, and machines. The ventilation of a darkened room is a problem each visual department must solve. Chairs should be at least twenty feet away from the screen. If using a silvered screen no outside light should fall upon the screen. The larger the picture that is thrown upon the screen, the darker the room should be to give a clear cut picture. Avoid throwing the white light of the machine upon the screen when threading or changing films. Many directors and classroom teachers prefer the beaded daylight screens; these should be considered when other conditions are favorable. Machines should be firmly placed on their stands or tripods to eliminate vibration. Pictures should be focused until the edges are clear cut, not blurred. The framing of the picture should be even, as it is irritating to the observer to see a streak of white light or a part of another frame.

Children should be assigned places where each can see the screen well without optical or posture strain. They should not be required to raise their eyes more than thirty-five degrees from horizontal or move them more than twenty-five degrees from right to left. Each child should take the same selected chair each time he views films. From this we formulate

Rule Two: A darkened, or partially darkened room, well ventilated, machines on solid bases, pictures clear cut and well framed, chairs in correct position and children in healthful positions.

In the classroom, pictures should not serve to amuse, but to educate. They should be wholesome as to family relations and emotions aroused. Their purpose is to build character and to appeal to the attitude of good behavior. The subject matter must be accurate and well portrayed. The film should be previewed by the teacher to select two or three elements which she wishes to bring out in the lesson. Children, also, should be prepared for the film lesson in advance. New words should be explained to them; questions given that will tend to focus their attention.

The film may be used as an introductory lesson, correlating with the text lesson, explanatory of the text, or as a review of the text lesson.

When a film is shown for recreation it should be wholesome, its material positive, its titles grammatical. It should be in good taste, modest, clever. It should improve the standards of living in the home and in the community.

Rule Three, as seen above, sums up the kind of films to use, the preparation for the lesson, and the correlation of the picture films with the text lesson.

In the use of stereographs, prints, and charts, teachers may employ many methods. The materials should be carefully selected and may be placed in the hands of the children for a class lesson and recitation; on the browsing table for their reference and enjoyment; as a review of a lesson; or as an incentive for a written composition.

Rule Four: In the use of the stereographs, prints, and charts, choose for picture content; see that the light falls properly on the picture; and do not use too many pictures at one time. One or two pictures often serve to point the lesson. Never use more than ten or twelve at one time.

Blackboard drawings, or a dramatization of a lesson with the crayon in the hand of the skillful teacher are sources of joy and instruction to an entire class. And the attempt on the part of the student to dramatize a text lesson with a drawing or a series of drawings is given constructive criticism for accuracy by the other members of the class. Good models of plants, birds, animals, and insects may be used to great advantage in visual demonstrations. The models may supplement lessons with live objects or with pictures and films and should be used in all grades. Models of the human head, torso, and of the separate vital organs are of inestimable value in teaching bodily health and posture to the older students.

Use occupational or industrial exhibits to correlate with films showing the occupation or to use as a review after an exploratory field trip. Children of all grades love marionettes and puppets and these may be used to teach a great variety of lessons on manners and morals, safety first lessons or to dramatize lessons in history, civics, and literature.

Rule Five urges teachers to use models, exhibits, marionettes and puppets as tools in teaching the social sciences, physical education, and vocational subjects.

Toy theatres, toy motion picture boxes, strip theatre boards, film strips made by students, dolls in national costumes, and modeling are listed as laboratory work and each may be used in developing a project or activitiy that had its inspiration from the film, set ot pictures, or text lessons. Each will serve to keep the interest high until the lesson is thoroughly learned. Each piece of laboratory work should be an inspiration to carry over its high interest to the development of the next lesson to be learned. This, then, is *Rule Six*.

I have left the best of all visual aids until the last—the exploratory field trip. Take your pupils to the industries, factories, museums, the zoo, libraries, departments of government, historic places, to every worth while place where men and women carry on their occupations. Teach the boys and girls the right conduct to observe on the field trips—courtesy to each other and to their guides. Teach them to ask intelligent questions; to take mental and written notes; and teach them how to use this material in laboratory work upon their return to the classroom.

Rule Seven: Take the students on field trips. Take every class from Kindergarten through every grade they are in school. Explore nature life, the home, the neighborhood, and the community, in the Primary grades. Have the Intermediate and the Senior High School students explore to find how the world is housed, fed, clothed, and governed. Perchance you may be the means of helping the students in selecting their life occupations.

This is Visual Education—the "Seeing, hearing, doing method"—as the Department of Visual Education at the Huntington Beach Elementary Schools, in California, interprets the subject.

Can Educators Profit From Industry's Experience with the Motion Picture?

HOWARD A. GRAY

(Concluded from April)

CASTING aside any resentment which we might experience at the suggestion that we have failed to avail ourselves properly of an instructional medium within our reach, let us evaluate the following suggestions by way of analogy.

Is it impractical to weigh the values existent in sound picture programs of vitalized safety education, public school relations, pupil conservation, the organization and administration of progressive schools, when the effectiveness of comparable programs has been demonstrated by industry in the fields of accident prevention, public relations, the conservation of fuel, and the study of factory management? Or would it be socialistic to advocate governmental participation in education to the extent of further providing our schools with audio-visual materials similar in nature to those already distributed by the Department of Agriculture? To balanced judgment the answer is obvious when, in addition to the criterion of effectiveness, the elements of cost and economy of time in learning are taken into account.

Then there is the more general problem of adult education with which private agencies and public institutions of higher learning have been concerned for some time. These organizations have been seriously handicapped in their efforts to provide a comprehensive and effective program because of limited instructional facilities. The suggestion is here given that the cultural level of the American people can be wholesomely elevated if they are extended the privilege of periodically viewing sound picture productions in the arts and sciences; music, literature, painting and sculpturing; Americanization work, home making, parental education, and the use of leisure time; biology, psychology, political economy, and almost every other branch of human knowledge and

activity can be made available for purposes of adult education. Industry has demonstrated the practicability of the medium with much less interesting subjects.

Mass Motivation

To grasp fully the significant influence which motion pictures have on social groups, let us review the development of the advertising film. While few such pictures existed before 1912, American theatrical films circulated over the world had already given American products thousands of dollars worth of free publicity. The Department of Commerce estimated that every foot of theatrical film exported sold a dollar's worth of American goods before it was worn out, destroyed, or returned to the home exchange.

It has been proved in several instances, that many of the early Western thrillers and other motion pictures, primarily intended for home consumption, acted as silent but effective sales promoters in many foreign countries where they were viewed more out of curiosity than for entertainment. Through such pictures the first American sewing machine came to be sold in Dutch Malasia; a railroad water tank to be acquired in Khastun Sudan; an endless chain conveyor to be purchased in Santos, Brazil; Mexican horse-saddles to sell in Australia and Argentina; a steam yacht to strike the fancy of a Sumatran Sultan, and an automatic conveyor to find a buyer in Montevideo. Similarly, barber supplies came to have an appeal to Tasmanian bushmen; broadaxes found a new market in Paraguay; sidehill plows and buckets came to be used in the Malay Peninsula, and as a final achievement, the theatrical film is given credit for the suggestion which led to the installation of a hydro-electric plant in Bolivia. News reels have since introduced many other American goods to foreign consumers and the end is not yet. Unfortunately, such a record is not without a blemish. Labor troubles were experienced in Paris following the projection of an American silent drama. A group of stenographers are alleged to have called a walk-out after their employer had refused to grant their demands for office equipment such as they had seen in operation in a Hollywood office set!

In 1912, a dynamite manufacturer photographed his experiments in blasting tree stumps from untillable land in Missouri. Interested onlookers requested to see the finished picture. The news spread and the film was subsequently sought and shown at farmer's institutes, land shows, schools, and colleges in Missouri and other states. Stump-blasting became a popular way of clearing land and dynamite sales increased many fold. During the same year, a borax company released a picture of its products through five road crews equipped with portable projectors. A tour of the nation included over 300 cities, and showings to nearly a million people were made in theatres, hotels, auditoriums, clubs, camps and other locations at an average cost of two and nine-tenths cents per capita.

There followed in rapid succession films on golf balls, tires, soap, automobiles, fashion shows, pavement materials, pottery, tooth paste, lead pencils, toys, candies, paint, bricks, motorboats, fire extinguishers, iron pipes, typewriters, food preparations, chemicals, sewing machines, batteries and other commodities. By 1914 several studios were devoting their entire time to the production of advertising films.

The sixteen millimeter projector replaced many sample cases carried by traveling salesmen. These early projectors were operated with arc or gaslights before the day of incandescent lamps. They sold products and services which otherwise could not be easily demonstrated and with them indifference was conquered and good-will built up.

Merchandise difficult to transport from prospect to prospect was easily demonstrated in far away corners of the earth. Intricate machine assemblies were made relatively simple for field men and customers alike. Valuable furs and dresses were adequately displayed, often to better advantage. Such pictures saved time and words, corroborated a salesman's statements, and showed the relative merits of products with ideas and settings which verbal description could not convey. They likewise revealed new uses for many articles and tied up local dealers with central offices.

Our railroads were one of the pioneer groups to use advertising films. Scenic wonders along their routes were vividly portrayed to an interested public and received a wide distribution. Pictures on the historical development of certain rail systems perpetuated the memory of leading railroad workers, types of equipment, and principles of operation. Safety pictures reduced accidents among employees and secured the attention and cooperation of the public. Colonization was promoted in unsettled areas and agriculture developed by means of films on dry-farming opportunities and methods.

Other organizations, both at home and abroad, have sold the ideas of good roads, store fixtures, tunnel bond issues, and a further array of projects, including the consumption of Swiss cheese and kippered herring. As early as 1914, such films were being prepared for showing in the theatres of Great Britain as well as at trade exhibitions, fairs, and other public assemblies. Three pictures, telling the story of shoes, cocoa, and the tailoring of a popular brand of men's suits, were sufficiently dramatized to be well received by theatre audiences throughout England. In 1919 the Federation of British Industries resolved to follow the example set by American industries by adopting the motion picture as a part of an international advertising enterprise. Pictures on the installation and operation of printing press machinery, processes of smoking fish, industrial uses of an English made automobile, and the story of a world-wide sales organization are among the many which have been

produced. Since the depression, efforts have been doubled by this organization to increase the number of such films.

With the coming of the sound picture, advertising groups quickly recognized the additional advantages which the new medium possessed. Owing to the scarcity of sound projection equipment at that time, no sound advertising pictures were produced until the latter part of 1928, when an automobile sales organization instituted the practice. With a road crew and portable sound projection equipment, the picture was shown to over 300,000 people in 220 cities during a period of ten weeks. A short time afterward a piston ring manufacturer in two months made 450 showings to nearly 22,000 people at projections arranged by their dealers, jobbers and distributors, employing an early model of a portable 16 millimeter sound projector. To date the same organization has increased its sales 52% after projecting the picture for a total audience of 118,000 persons.

Industrial sound pictures are being made even in greater numbers as sound projection facilities continue to increase. A nationally known automobile manufacturer, with a sound feature picture arranged for the sales instruction of its dealers, reduced the cost of their district meetings one-third. Over 95% of the dealers put ideas suggested by the pictures into local practice with a marked increase in sales. Automobile manufacturers after testing the new advertising medium, planned extensive sound picture programs to counteract the effects of the existing depression. The major oil companies are utilizing similar pictures to train the station attendants, and several organizations have helped to bring about better personnel relations among their employees.

There are at present over one hundred and fifty industrial sound pictures produced for advertising and selling real estate developments, airplane trips, cement, telephone, automobiles, baking powder, medical supplies, travel tours, railroad equipment, press service, coal, coffee, dairy products, insurance, steel, refrigerators, wearing apparel, watches, soft drinks, bakery products, tapestries, trolley buses and many other products and services.

In keeping with such a program, efforts are being made to raise the quality of the pictures. An international advertiser's association has drawn up a code governing advertising activities with the film, and a research organization has developed a set of standards which assure the elimination of objectionable and unethical features and practices.

The Inference for Education

Let it be understood that the preceding paragraphs are not intended to advocate or to justify the use of commercial advertising films in American education. However, as educators we must not fail to recognize the potency of the sound film as a device for moulding and crystalizing public opinion, which in the past has regulated educational progress to a significant extent. Also, we can review the evidence and note where we might have furthered the cause of education by the more extensive use of the motion picture.

Instead of merely creating a foreign market for American products it is a sad commentary that our theatrical releases incidentally did not give evidence of America's desire for international cooperation and good-will. Or, that the philosophy of John Dewey could not have been presented by motion pictures to educators in foreign lands as an invitation for the exchange of educational viewpoints.

While the American public was being informed of the advantages of borax and dynamite, the reorganization of our secondary school system was being attempted. But no effort was made to awaken the interest of the laity and obtain the united support of the educational profession by providing a motion picture interpretation of the need for such a reorganization.

The plea for funds to create good roads, tunnels, and waterway improvements gained public attention and approval throughout the nation by means of the motion picture. Meanwhile, only a fraction of the same population was made aware of the necessity for school medical service, adequate school buildings, and better trained teachers by the isolated pleas of school workers in widely separated communities.

Through the medium of the sound picture new business concepts and research findings of industrial laboratories are reported to the employees of those industries operating throughout the world. Convention costs are reduced substantially and delegates return to their work inspired with new ideas to assist them in solving their problems. Workers not able to attend national conventions receive the same stimulation by the later projection of the pictures at local meetings. An interested public becomes informed of changed trade policies, and the merits of the new products. The content of such pictures has been carefully arranged to convey a vivid, stirring message with realistic appeal but with an economy of time and absence of verbal redundancy.

The programs of our educational conventions likewise could be considerably enriched by sound picture presentations of significant research findings determined from time to time. In fact, this innovation already has been introduced. However, additional pictures reflecting contemporary theory and practice on problems of vital interest and value to the profession are sorely needed. After being shown at the national conventions they could be profitably utilized at state, county, city, and institutional gatherings. Parent-Teacher Associations, and other civic organizations interested in the welfare and progress of the schools could intelligently become informed on edu-

(*Concluded on page* 131)

Modern Tendencies and Procedures In Biology Instruction

ARTHUR H. BRYAN

ONE OF the most popular subjects in a high school curriculum, which offers a pleasing and varied appeal to the average student's interest (that is if every modern teaching method is employed) is biology. This paper is written with the idea of presenting a few modern concepts in the practice of applied pedagogy calculated to keep the biology student vitally interested throughout the course in this subject. The demand for biology within the last two years in two high schools in Baltimore, has quadrupled itself, in one instance an increase from 200 to the present total of 850 pupils electing it. The writer believes that the one word in pedagogy which spells success in the class-room is "interest." It certainly is the dominant factor in the surprising demand for biology evidenced at the four high schools in this city where the subject is taught and where a similar increase in enrollment has taken place.

No subject offers greater opportunity for putting into practice the various methods of teaching, approved in modern educational circles, than biology, with its infinite wealth of possible subject matter and its adaptability to the various methods of presentation. If variety is the spice of life, biology can be made a spice subject of real interest and value to the students, by utilizing every modern means at our disposal for revealing the subject matter to the students. If the moving picture machine with endless biological subjects adaptable to the class room; the revealing powers of the microscope; the study and dissection of interesting flora and fauna; experiments by the students; collections and study of life by the students on their trips into the country; stereopticon lectures and demonstrations, along with the regular class room procedures—if all these fail to interest the students, then the modern concepts of theory and practice of teaching are wrong.

Biology aims to instruct the pupil in the fundamental principles governing plant and animal life, with emphasis on the economic importance and civic values as applied to agriculture and human welfare; hence the subject matter includes practical applications of bacteriology, botany, physiology, hygiene and zoology, and in so doing answers many questions of vital interest and value to him in later life. Vocational aims are legion, for the subject reveals dozens of possible fields for further study of which biology is the fundamental subject. Medicine, including its ramifications of public health, bacteriology, gardening, biochemistry, horticulture, dentistry, veterinary medicine, pharmacy, nursing, etc.; agriculture including forestry, agricultural chemistry, dairy and live stock industry, entomology, agronomy, etc.; industry including commercial enterprises engaged in food, clothing supply, etc.; such are the opportunities revealed directly or indirectly in the subject matter.

The socialized recitation stands high as a method to be used in presenting non-technical lessons, such as the "Economic Importance of Plant and Animal Life," "Forestry, the Lumber Industry, and Forest Conservation," "Current Problems in Agriculture," etc. In this type of lesson the teacher is merely an observer in the back of the room, the students leading the discussion, by presenting short oral reports on any related topic in which they are interested followed by controlled discussion.

One half, at least, of all the work done in biology is, of course, in the laboratory and quite a fair percentage of this phase of the study in making drawings of various biological specimens with or without the aid of the microscope, and in making dissections of plant and animal forms with reproductions of them in drawings in the notebook. In addition, field trips and other excursions can be undertaken to make the work still more interesting.

The infinite wonders and glories of nature can be revealed to the students partly through specialized and varied biological topics presented as lecture demonstrations. The interests of the student should be developed along biological lines and his every means of perception trained to appreciate these marvels of life and living matter through every teaching method available.

The project-problem method also finds its place as a method of instruction. The classes called upon to work out the functions of the leaf learned how the leaf is the world's day-light food factory. Various diagrams and picture puzzles in one of the older text books are given to the students to work out in terms of leaf photo-synthesis, and interpretations of leaf function. After some supervised study of these picture problems, the students present orally or at the blackboard the solutions, with free discussion by the class.

Argumentation and debate become absorbingly interesting towards the end of the year when the students begin to appreciate the significance of heredity and environment, and each student presents his reasons for believing either one or the other to be the dominant factor in life, the text giving a splendid basis for numerous thought provoking questions of a debatable nature.

When the students tire of ordinary lecture and recitation methods, bring on the biological stage, dem-

onstrations and visual aids. Illustrate forestry, with beautiful stereopticon slides, or any of the dozen and one films on the various phases of forestry and forest conservation to be obtained from your State Forester or from the United States Forestry Service, Washington, D. C. The wonders of bird life can be revealed beautifully by the use of colored slides which are actual photographs made by a foremost Baltimore Ornithologist, Mr. Brumbaugh, a former City College instructor, or any State Ornithological Societies. Swepson Earle, the State Conservation Commissioner of Maryland has available for loan some excellent slides and films of the various resources of Chesapeake Bay, such as "Chesapeake Bay Blue Crabs," and "Oysters of the Chesapeake."

The Baltimore City Health Department and likewise most large City Health Departments are ever ready to co-operate with the class-room, with their slides and films on public health topics, dental hygiene, etc. Dozens of films have illustrative material in the form of actual specimens, films, and slides which are available for the asking; for example, the American Red Cross, the Metropolitan Life Insurance Co., the International Harvester Company, the United States Tire and Rubber Company, Parke Davis and Co., etc. Talking films are available with free demonstrations using the company's machine and operator, notably those from the General Electric Co. and the International Harvester Co. The various branches of the U. S. Department of Agriculture, Bureau of Mines, Fisheries, Bureau of Animal Industry, and Forestry, etc., have catalogues of free film and slide services obtainable for schools and colleges. Also many state departments of agriculture have film and slide service available. The UFA studios have marvelous biological films catalogued, but they are available at a reasonable rental charge.

The finest biological films yet seen by the writer are known as the "Science of Life" series of twelve reels, produced by the United States Department of Health, Washington, D. C., in cooperation with Bray Pictures Corporation, from whom the films can be obtained. Some titles follow: "Protoplasm, the Beginning of Life," "Reproduction in Lower Forms of Life," "Reproduction in Higher Forms," "Interdependence of Living Things," "How Plants and Animals Cause Disease," "How Disease is Spread," "How to Prevent Disease," "How the Mosquito Spreads Disease," "The Fly as a Disease Carrier," "Personal Hygiene for Young Women," "Personal Hygiene for Young Men," and "General Personal Hygiene."

An important point in showing films in the class room is that unless the student is required to make a written or oral report on the film following the showing, he does not concentrate his attention on the film sufficiently. Films, in the opinion of students, are primarily for relaxation and pleasure and are too apt to be forgotten quickly. The questions and discussion which follow fix in his mind the important lessons and facts that the film has presented.

Students like to do things themselves, which is the primary objective of the laboratory work in biology. Here the students, emulating the microbe hunters of the past, delve into the wonders of life in a drop of water, or pieces of plant or animal tissue, using the instrument that reveals new worlds of living things—the microscope. Stained slides and specimens are studied and reproduced in drawings from microscopic observations. The students germinate their own seeds, make daily observations of growth, dissect the various parts, and observe selected sections under the microscope. They are encouraged to bring in their own material, thus extending the classroom work to the country side, stream, swamp, and bay, where the wonders of nature await the keen observer. Interesting animals like the sponges, jelly fish, tape-worms, earth worms, insects of all kinds, star fish, clams, the sea squid, fish, frogs, birds, reptiles, and mammals are all studied in the laboratory.

The students of the writer's classes undertook as a project recently to identify the trees on the campus and label them. The survey by the students has revealed valuable information, as several interesting tree hybrids have been found, as well as some diseases of the trees which need the services of the Municipal Tree Surgeons to save them. The classes are trying to discover the causes of death among some of the best trees this year. In addition to this project, we include practical instruction in first aid in the last month of the work in biology, in co-operation with the American Red Cross. Students completing the course and taking the prescribed practical examination will be eligible to receive the first aid certificates and buttons of the American Red Cross.

Finally the criteria for judging the value of a subject lies in its application to the seven cardinal principles of secondary education. Biology meets the demands of all seven:—

1. Health through physiology and hygiene instruction.
2. Command of fundamental processes, through drawing, observation, and dissection.
3. Ethical character, through practical applications of sociology, and the love and respect for the laws of nature.
4. Worthy use of leisure—nature lore and study as a hobby.
5. Social civic values in conservation of natural resources, forestry and bird life, etc.
6. Worthy home membership, in developing the home garden, and in understanding the principles of dietics, first aid, and home hygiene.
7. Vocational aims in the presentation of dozens of possible vocations.

The transfer values of biology are important, for the subject bears some relationship, directly or indirectly, to almost every other science.

GOVERNMENT ACTIVITIES IN THE VISUAL FIELD

CONDUCTED BY MARGARET A. KLEIN

A Filing System for Visual Aids

(Continued from April number)

BEFORE proceeding with the description of the second section of the filing system which I am describing in this series of articles, I want to insert an example of the "shipment letter" mentioned in the previous installment of this article.

The following shipment letter contains the information usually included in such letters. Notice that a request for attendance is included and this is important data to have when you compile your monthly reports.

November 16, 1931.

Miss Mary Black,
Central High School,
Rush Center, Colo.

My Dear Miss Black:

In accordance with my letter of October 11, we are sending you today, a copy of the motion picture "Diet" and a set of each of the posters "Diet Standards" and "A Healthy Diet." The material has been examined since it was last used and I think you will find it in good condition. We shall depend upon you to have it carefully handled.

Inclosed are an acknowledgment form and a self-addressed envelope. Upon the receipt of the material, will you please fill out the form and return it to us.

The material should be returned so that it will reach the office no later than November 30. We shall appreciate your co-operation in carrying out this schedule, since it causes us a great deal of inconvenience if the material arrives even one day late.

We shall be glad to receive a report of the attendance at the showing of the material.

Very sincerely yours,

inclos.

II. The Stock File

The purpose of the "Stock" file is to have an accurate record of all material available for distribution in connection with the visual education work of the school system.

The "Stock" file will have as many main divisions as there are kinds of material and as many subdivisions as there are copies of films, sets of slides, sets of posters, and individual pieces of material.

The main divisions usually found in a stock file are as follows:

Film strips
Models
Machines
Panels
Posters
Slides (glass slides)
Motion pictures (16 mm.)
Motion pictures (35 mm.)

These captions should be noted on the tabs of the salmon colored guide cards that separate the main divisions.

Each main division is subdivided when necessary by blue guide cards. For example, let us suppose that your visual education bureau distributes four motion pictures entitled "Posture," "Good Health," "Diet," and "Exercise." Accordingly the motion picture section is subdivided by four blue guide cards with the titles, Posture, Good Health, Diet, and Exercise noted on the tabs of the guide card.

The subdivisions contain an index card for each individual article, motion picture, film strip, etc., or as in the case of the posters and slides, for each individual set of material. For an example of this division: Suppose your bureau has available for distribution 14 copies of the motion picture "Diet." Accordingly there are 14 index cards numbered from 1 to 14 filed in back of the blue guide card noted "Diet," and each card is an individual record of an individual copy of this particular motion picture.

The index card known as the stock card is a 4 by 6 white card with a line across the top two spaces below the top of the card. On the line three things are noted: (1) On the left hand side is stated the kind of material; (2) in the center is the purchase date of the material, and (3) on the right hand side is the number. (See illustration of stock card.)

Two spaces below the first line is another line on which are noted also three notations: Lent to: Date: Returned: (See illustration of stock card.)

A glance at the stock card indicates whether that particular piece of material is available. The purchase date helps to determine whether the material is too old for distribution and is also an indicator of the wearing quality of the material. Since the number of loans are indicated on this card by the reservations listed under the caption, "Lent to:" the usefulness of the material can be determined to a certain extent.

Stock cards should not be made for the individual posters, charts, and panels in each set, nor should the sets be broken for distribution as it involves considerable clerical work to keep track of individual articles of this nature. Accordingly posters, panels, and charts are loaned and recorded only as sets.

When a reservation of material is made, the notation is typed on the stock card under the proper

captions as follows:

Lent to:	Date:	Returned:
Black	11/16/31	

Stock card for motion picture

"Diet"	Bought May, 1930	No. 14
Lent to:	Date:	Returned:
Gray	5/31/30	Ret.-Ex.-O.K.
Brown	7/10/30	Ret.-Ex.-O.K.
Williams	11/28/30	Ret.-Ex.-O.K.
Hanson	1/26/31	Ret.-Ex.-O.K.
Black	11/16/31	

Before shipment is made

"Diet"	Bought May, 1930	No. 14
Lent to:	Date:	Returned:
Gray	5/31/30	Ret.-Ex.-O.K.
Brown	7/10/30	Ret.-Ex.-O.K.
Williams	11/28/30	Ret.-Ex.-O.K.
Hanson	1/26/31	Ret.-Ex.-O.K.
Black	11/16/31	Ret.-Ex.-O.K.

After shipment is returned

Stock card for a set of posters

Diet Health Habits	Made Sept., 1931	No. 2
Lent to:	Date:	Returned:
Black	11/16/31	

Before shipment is made

Diet Health Habits	Made Sept., 1931	No. 2
Lent to:	Date:	Returned:
Black	11/16/31	Ret.-Ex.-O.K.

After shipment is returned

NOTE: All illustrations are smaller than the cards. Actual size of card is 4 by 6 inches.

As has been previously said a glance at the stock card (see illustration) will show whether that particular piece of material is available for distribu-

Stock card for a set of charts

Diet Standards	Made Oct., 1931	No. 5
Lent to:	Date:	Returned:
Black	11/16/31	

Before shipment is made

Diet Standards	Made Oct., 1931	No. 5
Lent to:	Date:	Returned:
Black	11/16/31	Ret.-Ex.-O.K.

After shipment is returned

tion. In the case noted on the cards illustrating the motion picture, "Diet," No. 14 is not available for loan after November 16 until the notation "Returned-Examined-O.K." is stamped under the caption "Returned." This is also true of the poster lent for this particular exhibit.

IV. The Information Files

(The card-information file and the materials-information file.)

In order to be informed about the various methods of presenting facts by means of visual presentation it is necessary to collect information from many sources. This is accomplished by being on mailing lists, by personal contacts, and by writing to agencies and organizations that publish visual material. When information about visual material is received in your Visual Education Department, a notation is made on a small index card as to the name of the firm and the kind of material. This file is called the "Card-Information" file. The circulars, catalogues, etc., are filed in a regulation size filing cabinet and this file is known as the "Information-Materials" file.

The index cards in the "Card-Information" file are grouped under various headings so that information will be accessible for any one subject. For instance, cards under "Slides" indicate the address of slide producers: the slides available on various

(Concluded on page 134)

FILM PRODUCTION ACTIVITIES

The aim of this new department is to keep the educational field intimately acquainted with the increasing number of film productions especially suitable for use in the school and church field.

Women's Guild Film Series

Based on the sound theory that it is much more effective—and far more interesting—to see something done than to read or hear about it, an organization known as The Women's Screen Guild has been formed to acquaint women, through visual education, with the latest developments in home-making and household management.

Through a series of talking pictures now in production, the new organization will dramatize every home subject, beginning with the kitchen and all its modern equipment, and carrying on through house and garden. One can readily see that a wide range of subjects vitally interesting to women and teachers of household economics can be offered in such a program. Nor does this give an adequate scope of the series, for it will include such topics as entertaining, child training, budgeting, beauty culture, personal charm and dress—a comprehensive sweep through the entire gamut of feminine interest.

Good taste, accuracy and authenticity are assured each picture produced by the Guild by the close supervision of an Advisory Board composed of women who represent the best traditions of American social, artistic and home life. The chairman of the board is Emily Post, noted arbiter of etiquette, whose books are accepted as final authorities on social usage and home management. Other members of equal prominence in their respective fields are Edna Woolman Chase, editor of Vogue, and Nancy McClelland, who is an authority on interior decoration, antiques and murals, and was made a Chevalier of the Legion of Honor for her work in France. Decorations and settings for the pictures will be under the supervision of Mrs. Tony Sarg, Mrs. Joseph Urban and Mrs. Ben Ali Haggin, whose husbands have won world-wide fame as artists.

The pictures of The Women's Screen Guild are not to be confused with the usual commercial films, those interested in the new project hasten to explain. Each picture will tell a complete story of home life, and where newly-developed time and labor savers become part of the story, they will be introduced naturally and unforced. Each picture will be shown at a convenient hour for three mornings every other week in de luxe motion picture theatres throughout the country. There will be no fee charged at these showings, but admission will be upon invitation only. Cooperating women's clubs, many of which already have gone on record as being heartily in accord with the aims of the Guild, have offered to take charge of the distribution of tickets.

The first of the Guild pictures to be shown will be *Kitchen Magic,* which covers the entire subject of the modern kitchen from standpoints of efficiency, economy and beauty. Emily Post will appear in the introductory sequences of this picture, and each subsequent production will feature a leading authority on the subject treated.

Executive Offices of The Women's Guild, Inc., are at 205 East Forty-second Street, New York City.

New Firm Announces Three Films

The recently organized Progress Film Company of Chicago is completing the following productions.

Ether is an 8-minute silent film on the story of Anaesthetic Ether, produced for the Mallinckrodt Chemical Works, St. Louis, Mo. The film treats with the subject from three points of view, marking an interesting departure from usual presentation. First, Ether is shown being made at the factory, animation being used to show the cycle of action. Second, the structural formula of Ether is shown in animation, the breaking down of alcohol and sulphuric acid molecules into crude ether which is then refined. Third, the chemical process is then dramatized in animated cartoon in which the heat, alcohol and sulphuric acid are personalized. It is available free in 16 mm. prints for classes in chemistry, physics, pharmacology, etc.; exhibitor paying only shipping charges both ways.

1500 Fine Chemicals is an advertising film, all in cartoon, 3 minutes in length, silent, showing the world wide distribution of chemicals manufactured by the Mallinckrodt Chemical Works. Available only in 16 mm. size, free of rental charge.

Nature—Builder of Teeth, is a one reel sound picture being produced for the Chicago Centennial Dental Congress in association with the American Dental Association and Northwestern University Dental School. In animation the developmental growth of the teeth is shown from birth to the 18th year. The actual movement of the teeth is shown; the development of the temporary teeth; their eruption; the absorption of the roots; the permanent teeth then coming in; authentic presentation of the relation between the proper development of teeth and the shape and contour of the face.

The film, while authentic in scientific treatment, is being produced for lay presentation and will be featured at the Dental Exhibit at A Century of Progress. It is part of a program of public education in which mothers will be informed of the importance of the care of children's teeth.

After the World's Fair, it is intended to circulate

the picture through the American Dental Association and its 36,000 Dentist members through the country. At present, the film is available only in 16 mm. sound on disc form.

Warner Inaugurates Non-Theatrical Department

One of the large theatrical producing firms, Warner Brothers, announces that it is now able to supply schools, churches and other non-theatrical groups with a comprehensive list of features and short subjects which have previously been unavailable.

Included in the list are the excellent George Arliss films, such as *The Millionaire, Disraeli, Alexander Hamilton, The Man Who Played God,* etc. Among the short subjects particularly suitable to this field, are the *Newman Travelogues,* Ted Husing *Sport Thrills, Booth Tarkington Boys' Series,* the Bobby Jones series *How I Play Golf, Adventures in Africa,* and Ripley's *Believe It or Not* series. All are 35 mm. sound-on-film.

16mm Sound-on-Film

Arnold Audio Associates have re-recorded and have ready for sale and distribution a 16 mm. sound-on-film version of the classical fairy tale, *Puss in Boots,* which is based on the story of the same name. They claim that this is the first all-talking 16 mm. sound-on-film feature. Nat Schilkret's Orchestra provides the music and a very intelligent cast of children enact the play.

They have also reproduced a one-reel musical poem entitled *Out West* in which scenic views have been set to music and singing.

Two Timely Subjects

Universal Pictures Corporation has prepared a five-reel pictorial record of the career of Franklin D. Roosevelt, entitled *The Fighting President,* which presents him as the boy, the youth, the man, and the president. The picture traces his notable career, from his first taste of politics during the campaign of 1912, as assistant secretary of the navy, through successive campaigns to his own victory.

He is seen with his family at home, in the swimming pool, at his summer home in Georgia, the inauguration, with his dynamic speeches recorded, and the signing of the notable measures of the past few weeks.

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Metro-Goldwyn-Mayer has also just released a two-reel subject on *Roosevelt, the Man of the Hour,* which includes the highlights of his public life, from the time when he first thought of a career in statecraft to the first days in the presidency.

Family snapshots, domestic scenes and other human interest material will be found in the film, which aims to express the "action" personality of the new President in relation to the various environments and increasing responsibilities against which he has been placed.

Intimate glimpses of other public personalities such as Alfred E. Smith, Josephus Daniels and the late Theodore Roosevelt are shown.

New Subject Visualizes the Metals of a Motor Car

The Metals of a Motor Car, a new two-reel "silent" educational motion-picture film, prepared under the supervision of the United States Bureau of Mines in cooperation with an automobile company, is the latest addition to the Bureau's list of films visualizing the mineral and allied industries. It shows the way in which metals and alloys are used in the construction and operation of many parts of a motor car.

The film visualizes the necessity of constructing various parts with a combination of metals which will withstand heat, oppose wear, and resist shock, and explains why numerous parts are made especially to withstand strain and twist, while others are designed to give qualities of hardness and toughness, or resistance to shock and corrosion. The construction of the automobile engine and chassis itself is interestingly portrayed, together with the assembly of the axles, steering knuckles, connecting rods, transmission gears, universal joints, differential, and other parts of the car.

Copies of this film in both the 16-millimeter and 35-millimeter size, may be obtained for exhibition by schools, churches, clubs, civic and business organizations and others, without charge except for transportation costs.

Can Educators Profit from Industry's Experience?

(*Concluded from page* 125)

cational effort, culminating in a closer bond being established between the home, the school, and the community. The exchange of such pictures between educators in this and foreign lands would advance international educational relationships and understanding.

Unknowingly, industry has issued a challenge to modern education. A challenge which professionally minded workers cannot ignore since it concerns the welfare of school children, taxpayers, and teachers alike. It is the challenge of efficiency of method; tested, paid for, and proved by industry.

The three billion dollar American educational enterprise is experiencing sharp budgetary curtailments. We are expected to maintain educational standards established on more liberal monetary appropriations; to provide better or equally as good educational facilities for lesser expenditures. By answering industry's implied challenge we may be better able to discharge our obligation without sacrificing standards and quality too precious and too long in the process of creation to be discarded as an economic expediency.

DEPARTMENT OF VISUAL INSTRUCTION NOTES

CONDUCTED BY ELLSWORTH C. DENT, SECRETARY

1933 Directory in Demand

The Visual Instruction Directory for 1933, which was released last month, is being requested by many who desire to announce service of different kinds. Although the Directory should be of interest to all who are using or directing the use of visual aids, it is of greatest value to those who desire an up-to-date mailing list of the leading visual instruction workers throughout the United States.

Inasmuch as the unusual demand for the Directory was not anticipated, it is quite probable the quantity printed will not take care of all requests. It is suggested, therefore, that those who desire copies forward their orders immediately, using the blank provided in the lower left hand corner of this page.

Department Membership

Membership in the Department of Visual Instruction is increasing steadily, but should be ten times its present total. It costs but $2 a year, and includes services which would cost approximately twice that amount. It is the best "bargain" among all memberships offered to teachers, administrators, and others interested in the use of up-to-date and effective teaching methods. Use the accompanying blank to join the Department, make reservations for the annual meeting, or order a copy of the 1933 Visual Instruction Directory.

Secretary, Department of Visual Instruction,
1812 Illinois Street, Lawrence, Kansas.

Date.....

Check Below

I am planning to attend the Chicago meeting of the Department.

I desire membership in the Department. ($2.00 annually.)

I am a member of the National Education Association.

I wish to order a copy of the 1933 Directory. ($1.50, postpaid.) (Directory is free to members in good standing.)

I shall attend the luncheon at 12:15 noon, July 5. ($1.25)

I shall attend the luncheon at 12:15 noon, July 6. ($1.25)

I shall want a room reservation at the Congress Hotel. (If checked, reservation card will be mailed to you.)

Name .....
Address .....
City..... State.....

Rush Reservations!

A short time ago, approximately a thousand announcements of the summer meeting of the Department of Visual Instruction were mailed to members of the Department and others who might be interested. Several have made use of the blank provided for the purpose of making room reservations at the Congress Hotel, reserving places at the luncheon meetings, and requesting Department membership. The blank is provided on this page for the benefit of those who have not forwarded reservations or who may not have received the announcement folder.

These blanks should be properly checked and forwarded to the office of the Secretary without delay. It will be necessary to know, well in advance, the approximate number of those planning to attend the luncheon meetings, especially. If information is desired which is not provided for on the blank, a letter or a postal card will bring it.

Complete Program in June Issue

A complete and detailed program of the annual meeting of the Department of Visual Instruction of the National Education Association will be printed in this section of the June issue. It will reach all regular subscribers at the usual time and those who are not subscribers may secure copies at the meeting or at the visual instruction exhibit of the Century of Progress Exposition.

Briefly, the meetings will be held in the beautiful Florentine Room of the Congress Hotel; many interesting features will be presented, including a demonstration of radio-vision as employed in the Chicago public schools and a conducted visit to Adler Planetarium; the sessions of the Department avoid conflict with the general sessions of the N. E. A.; and the meetings will be open to anyone who may be interested, regardless of whether or not they may be members of the Department.

The first meeting will be a luncheon at the Congress Hotel, starting promptly at 12:15, noon, Wednesday, July 5. The principal speakers will be Superintendent R. G. Jones, of Cleveland; President Albert Lindsay Rowland of the State Teachers College at Shippensburg, Pennsylvania; and Miss Elda Merton, of Waukesha, Wisconsin.

The next session will be held in the afternoon, in the same room. This will be followed by the visit to Adler Planetarium on Thursday morning. The Thursday luncheon will be held at the same time and place as on Wednesday, followed by the general program and business session in the afternoon.

AMONG THE MAGAZINES AND BOOKS

CONDUCTED BY MARION F. LANPHIER

Journal of Chemical Education (February) "An Experiment in Visual Education," by J. O. Frank, State Teachers College, Oshkosh, Wisconsin, presents some conclusions as to the kinds of slides which are most effective as teaching aids.

Because of the variety of results and conclusions reported from studies of the effectiveness of the use of slides in teaching chemistry, the writer conducted his own investigation to determine their teaching value. He found that such conflicting findings were partially due to the differences in the values of the slides themselves, and in the method of presentation. Several sets of slides were especially prepared on the basis of his conclusions, the use of which rendered a 14% gain in the accomplishment of his classes.

Another article of interest in this issue tells how to make "Cellophane Roll Films for Slide Lanterns." The authors are Ross Bonar, Floyd Bonar, and Earl C. H. Davies, the latter professor of physical chemistry at West Virginia University. No extra lens system or alteration of the projection lantern whatever is required for the projection of the cellophane roll film. The slide carrier is merely withdrawn and the roll carrier inserted.

Sierra Educational News (March) In his article, "Use of Film in Education," Robert S. Johnson of the Department of Visual Instruction, University of California, Berkeley, points out that the auditorium and classroom require their peculiar type of film and method of presentation.

He gives the following directions for the correct use of films in the classroom: select those which will assist in solving a particular problem; use them either to introduce or summarize a problem; time their showing accurately; integrate film and verbal instruction; employ devices to aid students to retain the knowledge gained. He also states certain general rules which apply to auditorium films.

Child Welfare (January) "Better Movies," by Catherine Cooke Gilman, Chairman of the Committee on Motion Pictures, National Congress of Parents and Teachers, is a "stimulating explanation of the new Congress plan with regard to motion pictures." The old and futile methods of cooperation with the industry itself are discussed clearly and without prejudice. The plan of the National Congress of Parents and Teachers is then outlined with full directions for getting into prompt communication with source material and executive help. A copy of this issue should be in every teacher's and parent's hands.

Journal of Education (April 17) "Visual Aids at Little Cost," by George W. Wright, Principal, Far Hills, New Jersey, should prove helpful and stimulating to both rural and city schools which cannot afford mechanical visual equipment, as it suggests how to make effective use of available aids, such as school journeys and field trips, pictures in textbooks, magazines and newspapers, cartoons, blackboards, charts, maps, sandtables, plays and pageantry.

The writer recommends the purchase of the five mechanical types of visual equipment—stereographs, stereopticon slides and lantern, film slides, still films, and a motion picture machine—as quickly as circumstances permit, selecting that type which best serves their needs.

Nebraska Educational Journal (March) "Why the Geography Picture?" asks Superintendent Floyd A. Cropper, Tilden, Nebraska, and proceeds to answer the question. "Pictures and geography have become synonymous. Approximately twenty per cent of the space of the modern elementary textbook in geography is devoted to pictures." He states that the results of tests involving the use of flat pictures indicate a gain of 15% in knowledge of subject matter. The writer himself has conducted a study in which an evaluation was made of the increased ability of the class to interpret geography textbook pictures after picture instruction.

International Review of Educational Cinematography (March) Under a new typographical set-up this estimable publication offers its usual contents of valuable report and discussion in the film field. "Language-Teaching and the Talking Film," "Internationalism and the Film," and "The Use of the Cinema in Occupational Instruction" are among the articles presented.

Parents' Magazine (March) "Better Week-End Movies," by Lillian McKim White, offers one of the many efforts of communities to protect their children at the Saturday and Sunday movie. The writer feels that the plan "will work under conditions as they are without antagonizing theatre owners." This is often the case, but frequently it is apt to be otherwise.

The Living Age (January) "The German Cinema," by Louis Chéronnet, translated from *Le Crapouillot,* a Paris Literary Monthly, offers a sympathetic appraisal of the film in Germany as a "symbolic vision that reveals the evolution of a whole people." One may not agree with the writer's condemnation and praise, both granted with equal enthusiasm, but one does recognize an astute analysis of a subject.

Book Reviews

DEVELOPING ATTITUDES IN CHILDREN. The University of Chicago Press, Chicago, Illinois. 1933.

This published proceedings of the Mid-West Conference of the Chicago Association for Child Study and Parent Education, March, 1932, offers an excellent resumé of the discussions, findings and conclusions of the organization. "The Effect of Motion Pictures on the Social Attitudes of Children," by Ruth C. Peterson, reports the experiments conducted on this subject under the direction of Professor L. L. Thurstone and financed by the Payne Fund. A group of students was measured, for attitude, by means of an attitude scale. They were then shown selected motion pictures and were re-measured. The most important social attitudes were definitely and undeniably affected. Statistically supported, this report leaves but one impression upon the reader. He knows again, with sharp emphasis, the value and the danger of this all-reaching art.

THE 1933 FILM DAILY YEARBOOK, Jack Alicoate, Editor and Publisher, 1650 Broadway, New York City. 1024 pages.

The Fifteenth Annual Edition of Filmdom's encyclopedia and book of reference has recently appeared. It presents comprehensive data on all phases of the motion picture industry—production, distribution, organizations, exploitation, and financing. The Awards of the Academy of Motion Picture Arts and Sciences since 1927 and the Ten Best Pictures of 1932 (and previous years since 1922) are given prominence in the front of the book.

The Section on Production includes information on 1932 features, both American and foreign; a list of all pictures released since 1915; original titles of books and plays made into films under titles other than the original; a list of serials since 1920; facts on directors, players, writers, editors, cameramen and recording engineers; names and addresses of producers and distributors, together with their Exchange address in key cities; a list of motion picture publications and books on the industry.

Addresses and members of state and local censor boards are noted. A resumé is given of the 1932 activities of such organizations as the Motion Picture Producers and Distributors of America, the Academy of Motion Picture Arts and Sciences, Society for Motion Picture Engineers, National Board of Review, Motion Picture Theatre Owners of America; the theatrical and non-theatrical motion picture work of the various United States government departments; the name and personnel of societies, clubs, guilds and other organizations associated with the industry.

The Section on Exploitation offers suggestions to exhibitors regarding a public relations program to secure cooperation from clubs, schools, churches and public libraries. A feature of this section is a compilation, by states, of all motion picture theatres, totalling 18,533.

The last part of the book is devoted to the foreign field, listing the names and New York address of importers and exporters of film, and covering briefly production and distribution in various countries. In this connection appears a survey of the work of the Motion Picture Division of the United States Department of Commerce.

Government Activities

(*Concluded from page* 129)

subjects; information about home-made slides; various kinds of slide projectors, etc. It is of course necessary to have subdivisions under such comprehensive titles as "Posters", "Motion Pictures", "Slides", etc., as there is a great deal of this material on the market and consequently general headings such as slides are subdivided by blue guide cards with such titles on the tabs as Slide Producers; Slides (home-made); Slide Projectors; and the subject name of the slide series such as "Teeth", "Diphtheria", "Diet", "Sleep", etc.

There are also many details in connection with the organization of a visual education division such as the "Budget", "Reports", etc., and it will be quite helpful to keep these details on index cards and file them in the Card-Information file.

The main headings found in most card information files are as follows:

Artists
Drama
Film strips
  Machines
  Producers
Glass slides
  Machines
  Producers
Lithographers
Machines (not projectors)
Maps
Mechanical equipment
Motion pictures
Model makers
Models
Novelties
Pageants
Panels
Posters
Poster making
Publications (relating to visual material)
Photographers
Printers
Programs
Sand table projects
Show cards
Show card makers
Special projects
Stereographs
Window displays

Other headings which will be useful are:

Budget
Criticisms
Reports
Reimbursements

The main divisions may be subdivided as follows:

Motion picture photographers
Motion picture producers
Motion picture (subjects)
Motion picture projectors: 16 mm.
Motion picture projectors: 35 mm.
Motion picture projectors: sound

(To be continued)

NEWS AND NOTES

CONDUCTED BY JOSEPHINE HOFFMAN

Visual Aids Offered by University of Arizona

In his address delivered at the Arizona Education Association meeting last fall, Mr. Max Vosskuhler, Director of Arizona University Extension Division, described the service offered by the Divison to the public schools of the state.

"The selection of films and slides available is so comprehensive that it should satisfy almost every need for educational as well as recreational purposes. The total library of the Visual Education Bureau now comprises over 350 reels of film in standard, 35 mm., and narrow, 16 mm., widths, about 100 rolls of film slides, and 80 sets of glass slides aggregating more than 2,000 individual slides.

"A complete set of the well known Chronicles of American Photoplays in 35 mm. width is being offered this year at a reduced rental. These films have achieved an enviable reputation for excellence among educators as aids in the teaching of History, Geography, Civics and Americanization. Apart from this they also have a very definite value as entertainment material because of the authenticity, beauty, and dramatic handling of the engrossing story of the United States from the time of the discovery of America until the close of the Civil War.

"Provision has been made for those desiring entertainment moving pictures in a collection of 35 mm. animated cartoons, comedies, and clean, standard dramas available at a nominal rental. In the 16 mm. field a service is offered providing a six-reel entertainment feature film at two week intervals throughout the school year,—a total of fifteen features. These features are recent, high-class theatrical films which have been especially selected and edited for this service.

"A miscellaneous service library of some 200 reels of film has been collected dealing with a wide variety of subjects. The majority of these films are 35 mm. in width; but a library of 16 mm. subjects has been definitely begun and is now also available for use.

"The film slide and glass slide libraries are especially extensive this year. The film slide collection is particularly strong in foreign countries, foreign industries, and so forth, providing excellent material for the study of Physical and Economic Geography, Sociology, History and related studies. The glass slide library, among other sets, contains notable collections of industrial slides, geological subjects, and a number of beautifully colored sets dealing with domestic and foreign travelogs, peoples, industries, etc.

"The entire library of the Visual Education Bureau is listed and described in a printed bulletin which may be secured upon request from the Extension Division. In accord with the times charges for the use of films and slides have been set at a minimum. In general, the Bureau is offering two types of films—rental and service. Rental films are available upon payment of the specified rental charges, while Service films may be secured for as little as 25 cents per subject. Film slides and glass slides are also available at 25 cents per roll or set. For those exhibitors utilizing large numbers of visual aids a special annual enrollment fee of $10.00 has been provided which allows them unlimited use of all service films, both 35 mm. and 16 mm., for the academic year. Similarly an enrollment fee of $10.00 allows unlimited use of film slides and glass slides for the year. Exhibitors are asked to pay transportation charges on all films and slides from and to the Bureau in addition to the service or rental charges. Funds secured by the Bureau of Visual Education will be used to enlarge the film and slide library."

S. M. P. E. Program

The program of the spring meeting of the Society of Motion Picture Enginers, held April 24-28 in New York City, offered many interesting papers on a variety of subjects. One of the most significant was delivered by William Short, director of the Motion Picture Research Council, which has been engaged in film research work for the past five years under the sponsorship of the Payne Fund. "Unoccupied Motion Picture Fields" which he considered of greater importance than any that have yet been cultivated include: teaching pictures, juvenile entertainment, entertainment for adults, educational work, documentary work, and scientific work. The Council's researches have dealt chiefly with the effects of movies on children, and Mr. Short pointed out that pictures contain too much crime and sex for young audiences.

No less important was the paper on "Photoplay Appreciation in the Nation's Schools," by William Lewin, outlining the experiment which the National Council of Teachers of English has been engaged in during the past six months to determine whether the movie habits of adolescent America can be improved significantly through the medium of the English classroom. Data in regard to the reactions of 5,000 representative boys and girls involved are now being compiled.

Other addresses of particular interest to this particular field were: "Motion Picture Aesthetics," I. A.

Jacoby, College of the City of New York; "The Sound Film Program of the United States Department of Agriculture," R. Evans, Division of Motion Pictures; "An Introduction to the Experimental Study of Visual Fatigue," P. Snell, University of Rochester; "Military Training and Historical Films," F. W. Hoôrn, U. S. Signal Corps.

A Report from Wisconsin

Mr. J. E. Hansen, Chief of the Bureau of Visual Instruction at the University of Wisconsin, in a recent communication informed us that during the past year the Bureau photographic laboratory, which is also the official University laboratory, has made many thousands of slides for the University's use. He also reports that, although the circulation has fallen off on other aids, the Bureau's 16 mm. film circulation increased 15% during the past eight months over that of the same period last year.

Talking Book for Chicago Exposition

Something quite new in books—a talking book—will be introduced by the Federal Office of Education at the Chicago Century of Progress Exposition. Every 15 minutes the Talking Book will speak. It will address visitors at the Office of Education exhibit in the Department of the Interior display at the Federal Building.

Those who come to the exhibit will see a large book bound in red leather lying on a chromium plated reading desk. On the quarter hour the cover will slowly open and the pages will turn one after another revealing a series of brilliantly colored illustrations. There will be practically no text with the illustrations. The text will be spoken.

From concealed loudspeakers on either side of the book the words of the book spoken by United States Commissioner of Education William John Cooper will reach the ears of the visitors. The "talk" will tell the work and service of the Federal Office of Education. It will be synchronized with the turning pages so that the illustrations will illustrate the spoken words. The "talking time" of the book will be two and a half minutes. The book will close automatically until the next time for it to talk.

While the application of this idea to education can only be conjectured, it is pointed out by the Office of Education that it reduces eye strain to a minimum.

New York Newsreel Theatre Inaugurates Student Plan

In order to stimulate widespread interest in its educational programs of current events, the Embassy News Reel Theatre, New York City, offers a special admission rate of 15 cents to students. These tickets can be obtained from the Visual Education Department, the Current Events teacher or Principal's Office.

To further concentrate the attention of current events classes on these programs, the Theatre is conducting a Weekly Prize Essay Contest on the subject, "Which is the most significant event presented on the Embassy News Reel Theatre Program this week?"

Foreign Film Activities

We are indebted to the United States Department of Commerce for the following notes on non-theatrical motion picture activities abroad.

Brazil. At the educational motion picture convention held in Rio de Janeiro in January, the first meeting of the kind to be held in Brazil, a high appreciation of the value of educational films was shown, and a number of proposals advanced all looking toward the development of visual instruction. Due to the lack of educational film material, the project of compelling theaters to show a certain percentage of such subjects, was abandoned.

England. The 21st Annual Conference of the Educational Association, held in London, was the occasion for the display of several of the most recently produced educational films, including a number of 16 mm. sound films, and a new series made by British Instructional Films in close cooperation with school teachers, embracing such subjects as natural science, geography and elementary physics.

Germany. The Prussian Minister of Public Instruction has recommended the 16 mm. film as the best suited for school use. Since the issuance of the decree of 1922, promoting the use of visual education, the use of films in schools has undergone considerable extension. In Prussia, 2,000 schools possess their own film projectors and 25,000 schools are using films for tuition purposes.

Italy. The use of educational and cultural films is increasing in Italy. The general management of the GUF, the national university organization, has created a film committee the purpose of which is to supply educational film material for use in high schools, universities and at special shows. The first year of the committee's activities is to be a test year; and if this proves successful, it is planned that the GUF institute a film archive and organize a film exchange with student organizations abroad.

Rumania. In response to the request of the Rumanian Academy, the Minister of Public Instruction has arranged for cultural film showings with explanatory lectures at regular intervals for the pupils of elementary and medium schools. These shows will be considered as regular tuition and will take place during school hours, with entrance free to pupils. Programs will include travelogues of leading cities, countries and provinces of Europe and other continents; also pictures on natural history, hygiene and sports.

THE FILM ESTIMATES

Being the Combined Judgments of a National Committee on Current Theatrical Films

(The Film Estimates, in whole or in part, may be reprinted only by special arrangement with The Educational Screen)

Estimates are given for 3 groups
A—Intelligent Adult
Y—Youth (15-20 years)
C—Child (under 15 years)
Bold faced type means "recommended"

Air Hostess (Evalyn Knapp) (Columbia) Heroine an air-hostess on coast-to-coast air line, hero a young inventor with big ideas for expanding air travel. Vamping widow causes usual complications which lead to hectic and sensational thrills. Just another movie.
A—Mediocre Y—No C—No

Barbarian, The (Ramon Novarro, Myrna Loy) (MGM) Highly sexed romance, hero an Arab prince, acting as dragoman in Cairo, brazenly specializing in physical and financial conquest of traveling ladies. Then comes heroine, "real love," sensuous desert adventures, false emotional reversals, but hero wins out.
A—Depends on taste Y—Pernicious C—No

Bed Time Story, A (Maurice Chevalier) (Para.) Maurice is still the great philanderer, but now gives up his loves for the love of a foundling. He and baby delightful together. Some very sophisticated and suggestive situations as usual, but film is entertaining as a whole.
A—**Fine of kind** Y—Doubtful C—No

Be Mine Tonight (Jan Kiepura) (British-Gaumont-Universal) Refreshing foreign-made musical comedy, very un-Hollywood in its continental cast, manner, dialog, sets, beautiful Swiss backgrounds and fine singing. Clever little heroine notably good. Some over-acting by villain. Clean, amusing, human, rhythmic.
A—**Entertaining** Y—**Excellent** C—**Good**

Central Airport (Richard Barthelmess, Sally Eilers) (Warner) More air heroics and parachute thrills woven into love-story not very interesting or credible. Dubious situation of hero and heroine not offensively shown. Rather weak supporting cast, especially the "kid" brother who steals and marries hero's girl.
A—Hardly Y—Doubtful C—No

City of Song (Jan Kiepura) (Associated Sound Films) Beauty of Naples and Capri are background for musical love-story of boy with glorious voice and wealthy English girl. She would buy his way into European opera but he, offended, returns to his Naples sweetheart. Foreign cast. Fine singing.
A—**Interesting** Y—**Good** C—Fair

Cohens and Kellys in Trouble (Sidney-Murray) (Uni.) Crude, slapstick farce by the old comedy pair in usual, harmless manner. "Pat," the tug-boat captain, invites "Nathan" on board as guest and troubles begin. Romantic complications, drunken moments, and the same grimaces and mannerisms. Funny of its kind.
A—Perhaps Y—Probably funny
C—Probably funny

Daring Daughters (Marian Marsh) (Capitol) Cheap production about innocent cigar-counter girl and rich pent-house owner—complications supplied by her sister, country-boy hero, rich uncle, city playboys, sweeties, roues, etc.—with insipid dialog and usual happy ending.
A—Trash Y—No C—No

Destination Unknown (Pat O'Brien, Ralph Bellamy) (Uni.) Crude and hectic sea-melodrama, exploiting toughness, cruelty, and perils of the sea to the utmost—then having the effrontery to introduce a "stowaway," supposedly the Christ, who smooths and solves all miraculously. Brazen attempt at religious allegory.
A—Crude Y—No C—No

Ex-Lady (Bette Davis, Gene Raymond) (Warner) Another modern marriage vs. "career" situation with and without benefit of clergy, achieving many bedroom scenes and sex-exploiting moments. Both husband and wife have other "affairs." Moral ending when fun is over. More fuel for flaming youth.
A—Mediocre Y—Pernicious C—No

Grand Slam (Paul Lukas, Loretta Young) (Warner) Labored attempt at comic satire on bridge-playing and its exploitation by "experts," fake and otherwise, too obvious to be clever. Story preposterous, characters improbable. Dialog and action largely absurd.
A—Stupid Y—Little interest C—No

Humanity (Ralph Morgan, Boots Mallory) (Fox) Very human and appealing study of fine old doctor and his service to mankind. Son, prepared to join father's work, lured into evil practices by gangland's easy money. Exposure brings disgrace and death upon the old doctor, finely played by Ralph Morgan.
A—Fair Y—Fair C—No

Infernal Machine, The (Genevieve Tobin, Chester Morris) (Fox) Unconvincing attempt at mystery and drama aboard ship, where an infernal machine has supposedly been planted. Much conversation, little action. Suggestive situation involving hero and heroine turns out harmless and amusing. Far-fetched and unconvincing.
A—Mediocre Y—Better not C—No

King Kong (Robert Armstrong, Fay Wray) (RKO) Grotesque thriller with absurd story, but masterful photography and trick effects. Prehistoric monsters, grewsome situations. Scorns all probability for maudlin sensationalism and succeeds. The makers of "Grass" and "Chang" now turn splendid talents to this.
A—Notable of kind Y—Doubtful C—Very bad

Kiss Before the Mirror, A (Nancy Carroll, Paul Lukas, Frank Morgan) (Univ.) Fine acting in sensational, incredible, high pressure sex story of infidelity and the unwritten law. Brazen young wives of two fine, faithful men play merrily with lovers until caught. Then jealousy murder, hectic defense trial, and surviving wife is supposedly reformed.
A—Depends on taste Y—Pernicious C—No

Lady's Profession (Alison Skipworth, Roland Young) (Para.) Impoverished English family recoups its fortunes by running speakeasy in America. Absurd situation of cultured but naive people trying to deal with underworld made more or less amusing by skillful actors—largely wasted in such a hair-brained story.
A—Perhaps Y—Doubtful C—No

Looking Forward (Lionel Barrymore, Lewis Stone) (MGM) Splendid, timely film, masterfully acted and directed. Genuine, charming characters, caught in grip of depression, work out their salvation with loyal help of the younger generation. Human heroics at their best in intelligent, wholesome drama. A masterpiece.
A—**Notable** Y—**Excellent** C—Mature

Midnight Warning, The (William Boyd) (Mayfair) Mediocre mystery stuff, well enough acted, but with banal dailog and amateurish direction. Plenty of suspense and nothing objectionable except exceedingly grewsome scare stuff with heroine locked in among corpses in a morgue.
A—Mediocre Y—Worthless C—No

Mind Reader (Warren William) (First Nat'l) Glorifies incurable, contemptible, cheap faker as hero, who finally adopts mind-reading as best paying racket. He even repays love of sincere heroine by cheating, lying, and deserting her to face murder trial in his place. Final "cure" does not cure film.
A—Hardly Y—Better not C—No

Murders in the Zoo (Lionel Atwill) (Para.) Grewsome murder thriller, with Zoo background of raging lions, tigers, snakes, etc., about madly jealous director who stabs supposed rivals with snake venom and throws his wife to man-eating alligators. Aims only at spine chilling, and succeeds for those who care to furnish their spines.
A—Hardly Y—Worthless C—By no means

Mussolini Speaks (Lowell Thomas and News Reels) (Columbia) Skillful composite made from sound-news-reel shots, with well-written voice accompaniment. Comprehensive, impressive study of man and methods that have meant so much to Italy since great War. Rings true, and is distinctly educational for anyone.
A—**Very good** Y—**Excellent** C—**Very good**

Officer 13 (Monte Blue, Lila Lee) (1st Division) Realistic little picture of policeman's life at home with family, and on duty at grips with gangsters. Thrilling action and excitement, yet not enough to outweigh human interest. Avoids being propaganda for either side. Dialog and action undistinguished.
A—Mediocre Y—Fair C—Perhaps

Parole Girl (Mae Clarke, Ralph Bellamy) (Columbia) Little to recommend in far-fetched story of crookedness and vengeance, except fine work by Mae Clarke as innocent heroine tricked into crime and prison, who then exacts relentlessly punishment for the wrong she suffered. Direction, plot, motivation faulty.
A—Fair Y—Undesirable C—No

Phantom Broadcast, The (Ralph Forbes) (Monogram) Famous radio voice, supposedly from handsome six-footer but a contemptible cad, comes really from a hunchback of genuine talent and voice. True but hopeless love brings him only death. Improbable, and acting mediocre save sad, fine, appealing role by Forbes as hunchback.
A—Hardly Y—Doubtful C—No

Pleasure Cruise (Roland Young, Genevieve Tobin) (Fox) Artificial farce-comedy about married couple, really devoted but needing vacation from each other. She takes ocean trip "alone", but he goes incognito as ship's barber. As climax she spends night in cabin with her husband, supposing him new lover!
A—Only fair Y—Decidedly not C—No

Racing Strain (Wally Reid, Jr.) (Maxim) Elementary melodrama about boy hero, skilled race-driver for autos or airplanes, but inhibited by horror of having seen father killed at same game. He wins out, however. Fact that hero is played by son of Wallace Reid is only element of interest.
A—Poor Y—Hardly C—No

Secrets (Mary Pickford, Leslie Howard) (U.A.) Utterly charming love story with genuine sentiment, delightful humor, beautifully costumed and mannered. Two fine leading roles faultlessly played, though hero's character not wholly credible. Intelligent entertainment of the best.
A—**Excellent** Y—Probably very good
C—Beyond them

Smoke Lightning (George O'Brien) (Fox) A Western based on the Zane Grey story, "Canyon Walls," with George O'Brien as the likable hero who protects a small orphan girl and her ranch from the villains. Distinguished by the presence of little Betsy King Ross.
A—Hardly Y—**Entertaining** C—Exciting

State Trooper (Regis Toomey, Evelyn Knapp) (Columbia) Fair excitement and romance for the young, elementary for adults. Ex-State-Trooper hero leads in oil-price war against dishonest competitors, defeats bomb plot, saves plant, and wins boss' daughter—but why he wants her we don't know.
A—Hardly Y—Fairly good C—Passable

Sweepings (Lionel Barrymore) (RKO) The Chicago fire and 40 years after; showing rise of merchant, grimly obsessed with one idea, the store. He wins wealth, but loses four children, deservedly. In parts human and realistic, but often tedious and depressing. Probably too much Barrymore.
A—Fairly good Y—Doubtful C—Beyond them

Today We Live (Joan Crawford, Gary Cooper) (MGM) Stern, depressing war-story of English heroine and American hero, demanding heavy acting and much less sex than usual in Crawford films. Some tense, grim drama, strong human appeal, striking war scenes and super-tragic ending. Well done by all concerned.
A—Good of kind Y—Better not C—No

Unwritten Law, The (Greta Nissen, Lew Cody) (Majestic) Murder mystery, with considerable suspense and thrill about a contemptible old roue whose specialty of seduction and wife-stealing earns him death by murder. Decidedly adult material for adults who want that kind.
A—Hardly Y—By no means C—No

Working Man, The (George Arliss, Bette Davis) (Warner) Arliss dominant and delightful as hard-fighting, but always fair-fighting, manufacturer who wins success over strong competition. Finally fights own company to straighten out two wild young people who need it. Strong, wholesome character-drama.
A—**Excellent** Y—**Excellent**
C—Good though mature

THE CHURCH FIELD

CONDUCTED BY R. F. H. JOHNSON

Will Motion Pictures Pay Their Own Way?

H. PAUL JANES

THERE is a prevalent feeling among many church workers that the motion picture has not proved to be of any benefit to the church—that is to say, to individual churches. Several examples could be pointed out of ministers of the most successful and unsensational type who are turning people away from their doors—not on an evening when entertainment is expected, but on Sunday evenings when people are supposed to be doing everything else but going to church — if you listen to our proficient modern pessimists.

There is very good reason to believe that the reason people are not going to church in the evening is because churches have cheapened their evening services instead of enriching them. The men who are using motion pictures and stereopticon slides successfully and consistently have learned a new language—no less than that—and if one is to use the visual method he must likewise learn.

In future articles the writer hopes to tell the almost unbelievable tales of how some of these men have learned to use pictures. In this article consider the motion picture projector as a means of providing clean entertainment for 300 children every Friday afternoon and as a means of buying a pipe organ! This is literally what one projector has done for Rev. Chas. Evers, pastor of Woodlyn Presbyterian Church, Camden, N. J.

Rev. Mr. Evers is pastor of one of those difficult parishes near a shipyard. People poor, often unschooled and without the facilities of the average suburban community where the most successful churches are located. If you knew Mr. Evers you would say at once that there is one good reason for the success of the enterprise—for although he is the father of four children, all married, and although his hair is grey there is a living, vital twinkle in his eye —the seasoned, understanding twinkle of an old campaigner—and Mr. Evers not only has been but is now one of the most energetic men in South Jersey church work. Being in the locality where people depend mostly upon the motion picture theatre for their entertainment you would expect to hear the minister complain that in a purely social program the church can not compete—what has happened?

F. S. Wythe, who built the DeVry School Films, used to say there is only one kind of people: human people. The people in Woodlyn are discriminating people just as everywhere there are many of them. They want their children to have the advantage of discriminating entertainment. Mr. Evers provides the entertainment. Last Friday there were 300 of them — 37 were on the free list, of course, but the others gave something to the lady standing at the door, with a sack to catch the coins, pennies, nickles and dimes—and it is this and this only that has been paying for a pipe organ. Of course the projector paid for itself a long time ago. And could this sort of program be kept up indefinitely? Rev. Evers has been doing it only 13 years — shall we wait to see?

Friday evening programs at Woodlyn are varied —the average cost is $5.00. There is always a comedy, a commercial, and a travelog and sometimes a two or three reel feature. Five reels or one hour and fifteen minutes is the very longest program. The children never tire—an important lesson! The commercial pictures show how tooth paste is made as well as microscopic pictures of the little "bugs" that should be cleaned off or another shows how wheat becomes bread. Often the travelogs are free commercials from some railroad or resort. In this way Mr. Evers secures enough free film so that he can concentrate his funds on a reel or two of comedy or a good feature.

Yes, it takes lots of work and Mr. Evers is a genius at showing people their responsibility and teaching them how to carry out. Lots of people working together can do splendid things even in a parish where people are poor, supposedly undiscriminating, and where they don't have a pipe organ or clean recreation for their children, but want both!

The Ministry of Healing

It is impossible in this brief space to describe completely the successful use of a set of four or five slides and a one reel motion picture in a worship service. For a complete description of the latest technique being used in conducting worship services with pictures one should secure a treatise on the subject such as "Bulletin 100-Revised", available from the Presbyterian Board of Christian Education, Philadelphia (50c). The film and slides are also available from the same source and upon request you will be sent a complete outline of a service. The rental cost for the slides is $1.00 and for the film $3.50.

A realization that every gift of healing is from God is the aim of the service. It begins in semi-darkness with a dim cross reflected against the screen. As the prelude progresses a picture of Jesus holding the hand of a sick child appears and fades again as the prelude ends.

Then the congregation sings "At evening the sun was set" by Twells. The scripture is read and then there is a prayer. During the hymn there is a picture of a sunset; during the scripture and prayer only the cross is seen.

"Christ for the world we sing" by Wolcott is the theme hymn. The film comes with a cue sheet so that there is no excuse for not having a beautiful musical background. The sermon may hold up the unselfish healing ministry of Albert Schweitzer as typical of God's modern healing ministry. A competent leader will find little difficulty in providing adequate responses such as the hymn "Immortal Love, Forever Full" by Whittier. Other prayers and responses will suggest themselves.

At the conclusion of such a service a man came to the minister and gave him a ten dollar bill to be given to healing work—the minister had forgotten to take an offering, which should, of course, conclude such a service.

The film is one of 13 on the life of Jesus provided by the Religious Motion Picture Foundation, N. Y. C., and is listed in "1001" together with distributors. The slides are available only from the Presbyterian Board of Christian Education in Philadelphia.

H. P. J.

Baptist Women's Foreign Mission Society Uses Movies

While on a trip abroad, Mrs. H. E. Goodman, of Chicago, president of the Women's American Baptist Foreign Mission Society, made 16mm. movies in Japan, China, the Philippines, Burma, India, and the Belgian Congo. The films were taken with a view of showing them to the people at home, and the pictures include travel and scenic "shots" as well as views of mission work.

"The pictures were shown in one of our western states," writes Mrs. Goodman, "where they convinced some of the doubtful churches of the worth-whileness of our mission work. A year ago they were shown in about fifty churches in one of the states in the Ohio Valley, with great profit.

"Duplicates have been made for the denominational headquarters, and they are listed in the catalog of motion pictures available. On several occasions they have been shown in the Exhibit Room of our Northern Baptist Convention. Recently duplicates were also made for a Hospital Association from which several missionaries have gone out to the foreign field."

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CONDUCTED BY DR. F. DEAN McCLUSKY

Director, Scarborough School, Scarborough-on-Hudson, N. Y.

Museum Adventures In Geography

LAURA O'DAY

BEYOND the rim of the Arctic Circle stands the city of Hammerfest—the most northern city in the world. At 70 degrees north latitude the winters are long and cold. The snow is deep. Yet in and out of the busy ocean harbor of Hammerfest ships carry the commerce of many nations all through the winter months. Strange though it is, this northern port of Hammerfest is more icefree than the harbor of New York City.

April, May and June mean spring to us whose homes are north of the lands where it is always summer. But let us travel south an equal distance to the other side of the equator where our spring months change to autumn. April, May and June point to the approach of winter in the southern hemisphere. It would be a curious experience for us of the northern half of the world to go skiing on the fourth of July! — stranger still if Christmas came in summertime.

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We of the industrial United States think a good deal of our daylight saving time. It conserves the precious hours of sunlight for us and enables us to work in our gardens, play a set of tennis or go swimming after work. But what would Egypt say to the introduction of daylight saving time?

Facts such as these are half the story of geography. To a geographer the important question may be summed up in three letters—"Why?" Why is the harbor of a city beyond the Arctic Circle more free of ice in winter than the harbor of New York? The southern hemisphere works and plays outdoors while the northern half of the world digs itself out of a snow bank. Again the question is "Why?"

Geography looks to facts of climate, location and position of the sun to find an answer to these questions. The workshop of the geographer is the whole great world — its people and their setting. How these people earn their living—what they do —is part of the story. Why they do things in the ways that they have chosen is the rest. How vastly different this is from the geography of fifty years ago!

Although our workshop in geography is the world how many of us can travel from pole to pole or sail around the globe? What can be done about it?

The Buffalo Museum of Science thinks it knows the answer to this question. At least we are experimenting with a plan untried by other museums. What the outcome of the adventure will be cannot be predicted with certainty. It has not yet been measured by impartial statistical methods. We shall have to wait awhile for that. But for the present—on with the adventure.

Suppose you are a fourth grade pupil ready to study Japan. You might first open a book containing the "essentials of geography" and read that Japan is a group of islands off the east coast of Asia, that the area of the islands is 261,300 square miles and that by far the greater part of the area is rugged and mountainous. This information is accurate in its description of Japan. But do abstract facts and figures paint a vivid picture of Japan for you?

Now let pictures take the place of words and see how clear your first impressions of Japan become.

Here is a view of rice fields; from our hilltop they

look like a giant patchwork quilt. The broad tract looks pale green and silver in the springtime with the fresh new rice blades showing above their watery blanket. In autumn these same rice fields turn to yellow-brown and Japanese girls and women cut the tall, dry stalks with sickles to prevent their being spoiled for weaving into mats and baskets.

Here is another picture: Japanese girls picking tea leaves on a gently sloping hillside. How neat and trim the dark green bushes are! They remind one of well kept hedges in an English garden. And now another picture: A clump of trees growing on a corner of land too steep and rough for rice paddies. They are mulberry trees with pretty heart-shaped leaves picked for hungry, growing silk worms.

These pictures with others contribute definite ideas characterizing the people of Japan and their far eastern home. Each view portrays a separate bit of landscape. When fitted together the pictures comprise a miniature tour through Japan and briefly summarize life in the island Empire.

Carefully compiled sets of pictures are available at the Visual Education Division of the Buffalo Museum of Science, ready to introduce the pupils of the Buffalo schools to the geography of an area. Each set is something more than a collection of geographic views. In reality, each picture set is a game or puzzle and is accompanied by a card outlining the chief features of an introductory tour of a country. Thus pupils may become well acquainted with geography while enjoying the fun of the always popular puzzle.

Have you ever tried to see how many things you could learn just by observation? Play the game with me a minute. We will take as a very simple illustration, life on the Sahara desert.

Our pictures show a flock of goats nibbling at scrubby desert grass; a broad expanse of barren, treeless wasteland; an oasis of tall palm trees; Arabs resting before their tents of goat and camel's haircloth. How much such pictures tell! Do the pictures make you think this is a land of much or little rainfall? What two signs of scanty rainfall can you find suggested by the pictures? Are the Arabs shown in the pictures nomads? How can you tell?

The training afforded by a game like this develops powers of observation and reasoning. A little practice and a tent home becomes a sign of nomadic life while flat-roofed houses become evidence of little rainfall. Picture sets, however, are only part of our experiment.

In a moist, hot valley of Mexico at the foot of snow-capped Orizaba there grows a luxuriant vine with dark green, slender leaves. A plump, green pod looking much like an unripe banana replaces an exquisite orchid blossom in late spring. The pod turns yellow and becomes spotted with irregular patches of brown. Then it is picked. After hours of exposure to the tropic sun, guarded by the vigilant care of native workers the watery pods are transformed to slender, glossy, brown beans resembling thin, candy cigars. Have you guessed what the brown pods are? Perhaps not and a picture would not help you. But suppose I give you one of the pods. As you handle it you catch a whiff of its luscious odor. There is no longer any doubt left in your mind. You recognize the fragrance of vanilla — the bean from which vanilla extract is derived.

Another brown pod comes from the tropic forests of Ecuador in South America. It too is plump, resembling a giant pear in shape. Its shell is hard and brittle. This pod is the fruit of a small tree to which it is attached in a curious manner. Unlike any of the fruits with which we are familiar the brown pods do not grow at the tips of the branches of the tree. Instead they grow directly from the tree-trunk around which they cluster in profusion

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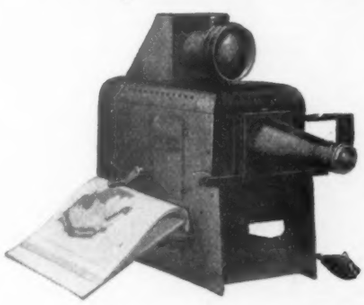

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Buffalo, N. Y.

—a habit that accounts in part for their successful cultivation in the windless tropic zone. Since the pods could not swing with the branches of the tree a wind would quickly snap them off and destroy one of our valuable low-latitude crops. When the pods have been cut down the natives split them open. The fat brown beans inside are the treasure demanded in large quantities by the candy-loving people of the temperate parts of the world. No doubt you know by now that these pods are the fruit of the cacao tree and contain the cacao beans from which we make chocolate.

One may borrow cacao beans from the Museum. One may study the curious sweet pod of the vanilla vine in addition to a list of many other items. There are, for example, bolls of snow-white cotton from the South and fuzzy, dark gray cotton seeds. There are sections of sugar cane and stalks of bamboo; copra, jute and wheat. And yet *we* think that these are not enough. Our adventure in geography assumes a second form.

Geography is not concerned alone with the fact that chocolate is made from a dark brown bean we import from Ecuador or that vanilla beans of high grade quality are grown in Mexico. Knowledge of the raw materials alone or the process that manufactures the finished product of industry does not constitute geography. Rather geography demands a knowledge of these working facts as tools and then sets out to find the reason why. Mounted pictures are invaluable in the study of geography but objects make their meaning more complete.

The Visual Education Division of the Buffalo Museum of Science has prepared geographic charts which Buffalo teachers may borrow for classroom use.

There is a chart on coconuts for example, relating specifically to the coconut crops of the Philippines. At the top of the chart there is an 8 by 10 inch picture taken in the Philippine Islands. The picture shows tall coconut palms — their fine, straight trunks shooting up for 60 or 100 feet into a plume-like cluster of long, fringed leaves. At the left a native hut is shown with its steeply sloping roof of palm-leaf thatch. At the right a Filipino lad follows along behind a lumbering water Buffalo hitched to a two-wheeled cart loaded with coconuts. You would hardly know that they were coconuts unless you had seen them as they were taken from the tree, encased in their bulky, fibrous husks. Beneath the picture on the chart there are specimens of fresh coconut meat, the grated meat and copra; there are coconut milk and oil and the brown pulpy residue so good for cattle food. Accompanying the chart is a coconut in the tough, thick shell in which it grew.

This chart with its guiding puzzle card has an educational story to tell. From it you learn that the coconut palm thrives in a tropic environment of heavy rainfall. The lush vegetation and steep roofed house of thatch agree in pointing out these facts. You learn that coconuts are the fruit of the coconut palm and grow just below the plume of leaves at the top. They are picked by native Filipino men and floated downstream to the coast for export. The husks that have protected the nut inside are removed before the cargo is stowed away on board. Although many coconuts leave the Philippines to be sold as food in distant lands coconut meat is valued chiefly because of the oil that it contains. The densely-peopled industrial nations of the world buy vast amounts of partly dried coconut meal—the *copra* of commerce.

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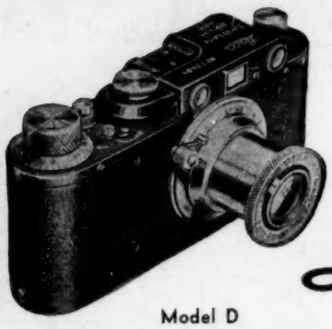

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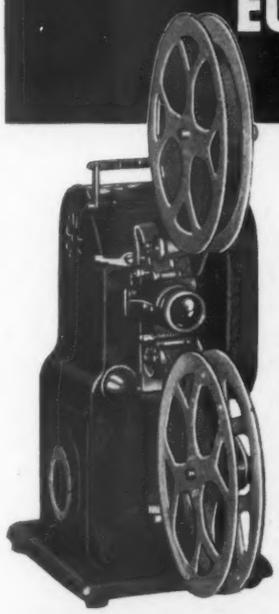

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Stewart-Warner Sound Equipment can be bought with the projector or any time later if you wish. The motor of the projector can take care of the sound unit with power to spare. A synchronizing bar permits instant synchronization of sound with lip motion during actual operation. Before you buy any motion picture equipment anywhere, at any price, investigate the many practical advantages offered by Stewart-Warner.

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Rocky Mountain Conference and Summer Courses

The Third Annual Rocky Mountain Visual Education Conference will be held July 7, 8 and 9, at the Colorado Agricultural College, Fort Collins. Ellsworth C. Dent, secretary of the Department of Visual Instruction of the N. E. A., will be present and will lead several of the discussions during the conference. He will teach two courses in the College summer session during the three weeks immediately following the conference.

In addition to demonstrations and exhibits of the latest types of visual aids, projection and photographic equipment, the conference will discuss such subjects as: Planning the visual instruction program; classroom procedure; sources of films and film supplies; making your own visual aids; use of visual aids in the elementary grades, junior high and high schools; visual aids in a general activity program; costs and relative values of visual aids as compared with other forms of instruction, etc.

Anyone who is planning to attend the conference and may desire to have other subjects discussed should write to I. G. Kinghorn, editor of publications at the College. He is in charge of arrangements and will be pleased to adjust the conference discussions to the needs and desires of those who may attend.

Teachers, school administrators and amateur movie fans from all over the West and Middle West attend these conferences. Those who wish to see some of Colorado's scenic attractions while there may join any one of several groups on the last day, Sunday. One group will go trout fishing; others will go on a 165-mile tour of Rocky Mountain National Park, over the famous Fall River Pass, Willow Creek Pass and Cameron Pass, returning by way of Cache la Poudre Canon; or on a geological tour of the old Indian camps, with their interesting tepee rings, fire pits, etc., north of the city; or on hiking or nature-study tours, as they may desire.

Visual instruction courses will be a part of the usual summer session schedule, and will be listed in the catalog as follows:

Ed. 116—*Visual Instruction.*—Two hours daily, two credits. Second three-week period. 8:00—10:00—Room 200, Physics Building. *Mr. Dent.* The purpose of this course is to present a broad picture of the philosophy, psychology and pedagogy of the use of visual aids to education in the classroom. The methods of using various types of visual aids and their comparative advantages will be discussed.

Ed. 117—*Special Problems in Visual Instruction.*—Two hours daily, two credits. Second three-week period. 10:00—12:00—Room 200, Physics Building. *Mr. Dent.* The purpose of this course is to provide an opportunity for individuals or groups to work out their own specific problems in the field of visual instruction. Emphasis will be placed upon the construction of courses of study, making use of the various types of visual aids. This will include research and coordination of the films and materials that are available in the particular territory where the teacher is located. Attention will be given also to the technique of handling machines of various types, both motion and still photography, and the preparation of scenarios for local school films or sets of slides. Afternoon field trips will be arranged in connection with this course.

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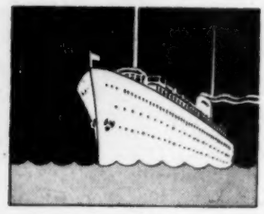

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A Hall of Science Feature—the B&L Exhibit

Films For the Noon Hour

GEORGE CARL WELLER

NOON hour around a high school, especially on rainy days, is a noisy, boisterous place. Few students care to spend the time directly after lunch for study. Some do, of course; the majority do not. The noon hour is spent in playing, shouting, running, and playing pranks. The results of these activities are not always desirable for the sake of the building nor for the students themselves.

Films during the noon hour! That's the solution to the problem at the South Francisco Junior-Senior High School, a school of 650 enrollment, with students from the seventh to the twelfth grades inclusive, a great many of whom bring their lunches, and a greater number who return to school early from lunch.

The lunch hour is from twelve to one o'clock. The last twenty minutes are used to project a film. The students are given an assembly call by the gongs, and they come to the auditorium. Here they see a film, listen to the radio, and engage in quiet conversation with their friends. This plan is thoroughly enjoyed by all, and something is accomplished in the twenty minutes which otherwise would be wasted.

The films are educational in nature, and most of them are obtained free of charge, except for transportation. The Bureau of Mines of the Department of Commerce has a supply of films sufficient to last any school for a year or more, depending upon how rapidly the school wishes to show them. The Bureau has thirteen offices scattered about over the United States, and each one can supply industrial educational films both in 35mm and 16mm widths.

In addition, a number of the moving picture manufacturers have free films available. Railroads, steamship lines and factories have films which they are glad to loan for showings. But why stop with free films? The school budget should include a certain amount to be spent for the rental or purchase of films. Here in California we are particularly fortunate in having a great depository of films at the University of California. These films are rented for as low as 50c per reel. The University has a 136 page catalog of films, together with a brief description—films on all subjects.

A famous college president once said, "Don't let books interfere with your education." He was right. These films bring to the students' eyes the impossible, the unreal, the gigantic, the wonderful. And all so inexpensively, and with just a little effort on someone's part—someone who will order the films, thread the machine, take some time out of the lunch hour, return the films—all so little, and yet so much for the education of modern youth.

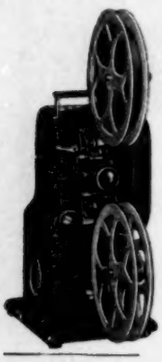
AMONG THE PRODUCERS

Where the commercial firms — whose activities have an important bearing on progress in the visual field — are free to tell their story in their own words. The Educational Screen is glad to reprint here, within necessary space limitations, such material as seems to have most informational and news value to our readers.

The Modern Magic Lantern

W. J. ZUCKER, Vice President
The Stewart-Warner Corp., Chicago

TRAVEL lectures illustrated with stereopticon views, so highly regarded in my youth, would scarcely appeal to young folks today. But the news reels and scenic shorts shown in the movie houses whet their desire for knowledge of far places and strange people just as the old-fashioned magic lantern did ours.



The foremost educators recognize and endorse the force and power of moving pictures in the classroom. Visual instruction is almost unlimited in its scope.

Silver screen presentations stimulate interest in dry subjects. History, geography and even the sciences can thus be dramatized and taught most understandingly. The development of scientific films, visualizing in slow motion, actions and reactions in chemistry, physics and botany, is attracting widespread attention.

By means of films, city children have all the advantages of field excursions, prohibited by circumstances and expense, and those in rural schools absorb knowledge and information from a great diversity of industrial films.

The increasing number of educational films available today at small cost, makes a projector an essential part of school equipment. Many have found the new Super Power, 500-watt, 16 mm. Projector made by Stewart-Warner, ideal for this purpose. Outstanding features, such as interchangeable speeds; brilliant illumination; automatic fire screen; ball bearing, self-oiling motor; duraluminum gears and centralized oiling combine to make this modern magic lantern an invaluable aid in imparting instruction.

A Treasure House of Historical Photographs in Motion Picture Stills

RECOGNITION of the treasure house of excellent and historically accurate pictures available in motion picture stills has led to frequent inquiry from Visual Directors throughout the country regarding the possibility of securing this material.

Through the exclusive cooperation of the Motion Picture Producers and Distributors of America, Inc., and a board of Visual Directors who have assisted in the careful selection and editing of the material, it is now made available in educational form by Educational Research Studies, Ltd., of Hollywood, California, who have used great care to select only such pictures as are historically accurate and which will broaden the child's vision of the high points of the period studied.

The basis of a good education must include a knowledge of what the world is like today and also an imaginative re-creation of past events, peoples and places, based on exhaustive research. We have too long depended upon word pictures, both written and oral, to supply the information to the child.

Following the new trend in visual education, carefully selected photographs should be more and more used to supplement the text. Leading Visual Directors point out that these are the most valuable of all classroom visual aids. Obviously the use of pictures of such quality and historical accuracy will result in active individual participation by the child, greater stimulation to the imagination, and an enrichment of his vocabulary.

In line with the new project method of teaching social subjects, these photographs have been grouped to cover certain periods. Clear, concise and inspiring text material is attached to each picture as an integral part of it, thus aiding the child in his research and building a continuity of the outstanding events of the period in such a way as to give him a comprehensive view of the whole.

The following sets are now ready, with others in preparation: *Westward Movement, Roman Life, American Revolution and Organization of Government, Civil War Period.*

There are about fifteen 8 x 10 photographs in each group dry mounted 9¼ x 11, and boxed. For prices and descriptive folder covering this new visual aid material write to Educational Research Studies, Ltd., 5400 Hollywood Blvd., Hollywood, California.

A New Producing Organization

Progress Film Company, Chicago, is engaged in the business of planning, producing and exhibiting motion pictures for educational, advertising and public relations purposes.

The Company was organized in February, 1933, by Morris A. Epstein, A.B., LL.B., (Ohio State University) an experienced advertising and motion picture executive, formerly Director of Sales and Advertising for Chicago Film Laboratory, Inc., Chicago, Illinois.

Associated with Mr. Epstein in the organization of the company are: J. Manley Phelps, Educational Editor (Well known Educator and Teacher of Better English and Better Speech; President, Phelps Institute of Speech, Chicago); John A. Maloney, Scientific Editor (For the past five years Assistant to the Director, Museum of Science and Industry (founded by Julius Rosenwald); formerly on the Staff of New York Times; popular writer on scientific subjects; Colonel Ira L. Reeves, Public Relations (Soldier, Statesman, Civic Leader; Western Manager for the "Crusaders"); Mary L. Hutton, Executive Secretary (Former Hollywood screen luminary); Catherine Denny, Art Director (Formerly with Chicago Civic Opera).

This company is now completing three motion pictures of educational character for World's Fair Exhibitors. They will be made available for showing before educational groups everywhere. A description of these subjects appears in the department "Film Production Activities" in this issue.

Filmosound Reproducer for 16mm Sound-on-Film

The Bell & Howell Filmosound, a highly perfected unit for reproducing 16 mm. sound-on-film movies, has just been announced. Its simplicity and compactness render it entirely suitable for home, school, church, or any other non-theatrical purposes, offering as it does ample picture size and adequate sound volume for audiences up to 1000 or more.

The projector, which is of the same basic design as the Filmo silent projectors, is mounted upon a Bell & Howell Sound Head of entirely new and unique design. The amplifier chassis forms the base for the combined projector and sound reproducer. The sound reproducing head contains the sound drum to which is attached an inertia storage wheel. This mechanical filtering system is said to produce a film movement possessing an exceedingly high degree of uniformity. This head also carries the sound sprocket, exciting lamp, a highly efficient optical system, photoelectric cell, and the first amplifier tube, which is of the latest design.

The remainder of the amplifier is mounted on a cast aluminum base, providing a high degree of strength with a minimum of weight. Provision is made for a microphone and also for a turntable (78 or 33 1/3 R.P.M.) pick-up. The 33 1/3 R.P.M. Filmophone turntable may be adapted to the Filmosound Projector when so desired, thereby giving both disc and film reproduction.

The entire apparatus is contained in two exceedingly compact cases, weighing together only 60 pounds. The speaker case has provision for four 1000-foot reels, speaker cord, reel arms, one spare tube of each type, spare photoelectric cell, exciting lamp, etc. The projector, amplifier, and sound mechanism are all mounted in one case, the controls of which are illuminated and accessible with the case closed.

Again Available!

A *limited* second edition of

VISUAL AIDS IN EDUCATION

By Joseph J. Weber, Ph.D.

The author's latest and finest work in the field in which he has pioneered and specialized and in which his purpose was "to compile for the progressive educator a balanced summary of the available scientific evidence on the values and limitations of visual aids in education, and then elaborate upon this evidence by way of generalization and application so as to inspire this educator in making a common-sense adaptation of visual materials and methods to the purposes of the school."

The book contains a wealth of material divided into three parts. Part I, under 22 chapter heads, discusses "The Values and Limitations of Visual Materials and Methods in the Work of the School."

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Carlyle Ellis (1, 4)
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Eastman Kodak Co. (4)
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(See advertisement on outside back cover)

Eastman Teaching Films, Inc. (1, 4)
Rochester, N. Y.
(See advertisement on inside back cover)

Edited Pictures System, Inc. (1, 4)
330 W. 42nd St., New York City

Ideal Pictures Corp. (1, 4)
26 E. Eighth St., Chicago, Ill.

Modern Woodmen of America (1, 4)
Rock Island, Ill.

Pinkney Film Service Co. (1, 4)
1028 Forbes St., Pittsburgh, Pa.

Ray-Bell Films, Inc. (3, 6)
817 University Ave., St. Paul, Minn.

Society for Visual Education (1, 4)
327 S. LaSalle St., Chicago, Ill.

United Projector and Films Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.

Universal Pictures Corp. (3)
730 Fifth Ave., New York City
(See advertisement on page 143)

Wholesome Films Service, Inc. (3, 4)
48 Melrose St., Boston, Mass.

Williams, Brown and Earle, Inc. (3, 6)
918 Chestnut St., Philadelphia, Pa.

Y. M. C. A. Motion Picture Bureau (1, 4)
347 Madison Ave., New York City
19 S. LaSalle St., Chicago, Ill.

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Bell & Howell Co. (6)
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(See advertisement on inside front cover)

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(See advertisement on outside back cover)

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Ideal Pictures Corp. (1, 4)
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International Projector Corp. (3, 6)
90 Gold St., New York City

Motion Picture Accessories Co. (3, 6)
43-47 W. 24th St., New York City.

Regina Photo Supply Ltd. (3, 6)
1924 Rose St., Regina, Sask.

Stewart-Warner Corp. (6)
Educational Dept., Chicago, Ill.
(See advertisement on page 143)

United Projector and Film Corp. (1, 4)
228 Franklin St., Buffalo, N. Y.

Victor Animatograph Corp. (6)
Davenport, Iowa.

Williams, Brown and Earle, Inc. (3, 6)
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PHOTOGRAPHS and PRINTS

Educational Research Studies, Ltd.
5400 Hollywood Blvd., Hollywood, Cal.
(See advertisement on page 140)

SCREENS

Da-Lite Screen Co.
2721 N. Crawford Ave., Chicago

Motion Picture Accessories Co.
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918 Chestnut St., Philadelphia, Pa.

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Conrad Slide and Projection Co.
510 Twenty-second Ave., East
Superior, Wis.

Eastman Educational Slides
Iowa City, Ia.

Edited Pictures System, Inc.
330 W. 42nd St., New York City

Ideal Pictures Corp.
26 E. Eighth St., Chicago, Ill.

Keystone View Co.
Meadville, Pa.

Radio-Mat Slide Co., Inc.
1674 Broadway, New York City
(See advertisement on page 141)

Society for Visual Education
327 S. LaSalle St., Chicago, Ill.

Spencer Lens Co.
19 Doat St., Buffalo, N. Y.
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